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# In This Issue



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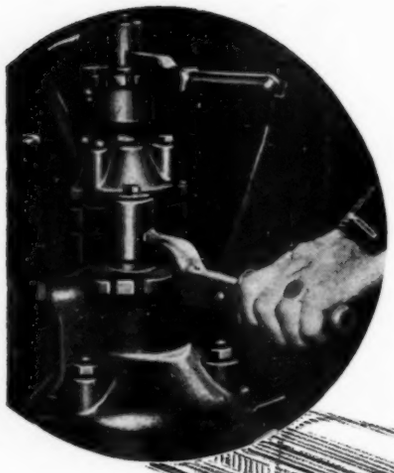
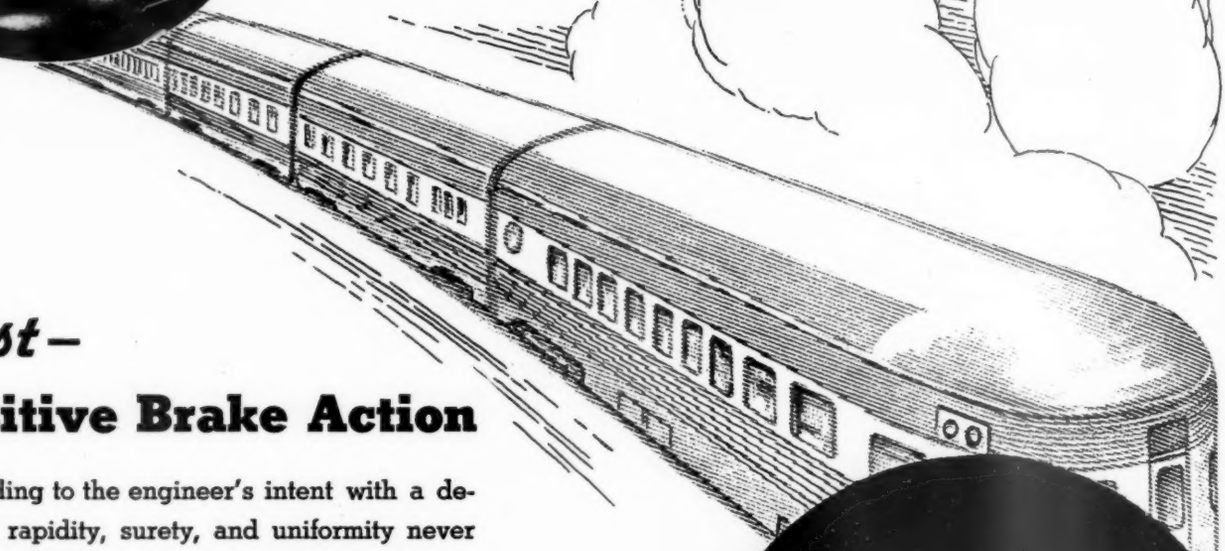


# *Quick* RESPONSE

## To Engineer's Intent

## On Passenger Trains



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RAILWAY AGE

# What—and Why—the Railroad Problem Is

It is impossible to understand any situation or deal intelligently and effectively with any problem unless you ascertain, and face, and grapple with the actual *facts*. The present railroad situation is a terrible mess; and little progress is being made toward solving the problem it presents because few seem to know the facts, and still fewer are willing to state, face and grapple with them.

The improvement in general business and in railway traffic and earnings that occurred during the last two-thirds of 1938 stopped at the end of the year, and has been followed by a sideways movement that has left them substantially better than in the first quarter of 1938, but no better than in the last quarter of 1938. Meantime, especially since Congress met, proposals have been made for numerous kinds of transportation legislation, most of which would do the railroads little or no good. So many of the proposals have been conflicting, or useless, or worse than useless, because those proposing them have been trying to further conflicting special interests of their own, or haven't ascertained what or why the railroad problem is.

### Solely a Problem of Net Earnings

The railroad problem exists solely because there is too little *margin* between the gross earnings of the railroad industry, on the one side, and its operating expenses and taxes, on the other side. The problem is that of adequately increasing this *margin*. Anybody who starts reasoning from any other premise will make no contribution whatever toward the problem's solution; and most of those discussing it are starting from other premises.

We will call "net earnings" the margin between gross earnings, on the one side, and operating expenses and taxes, on the other side, although the technical railroad term for it is "net operating income." Every business or industry must have a margin of net earnings if it is to live, develop and progress under private ownership. How wide this margin must be depends on what kind of a business it is. If it is the kind of business that requires only a small investment in plant in proportion to its annual gross earnings or "turnover" it can get along, or even prosper, with a relatively narrow margin of net earnings. If it is the kind of a business that requires a large investment in plant in proportion to its "turnover," then its margin of net earnings must be relatively wide. Railroads are the most extreme example of the latter kind of an industry; and our railroads are in serious trouble now solely because their margin of net earnings has shrunk until, unless it is widened, they cannot much longer continue to exist under private ownership. People can believe this or not, but it is a fact so vitally important that the entire future of the railroad industry will be determined by whether it is accepted as the most vitally important fact regarding the railroad problem, and all action for solution of the problem is based upon it.

### Margin of Net Earnings Has Declined from 29 Per Cent to 10½ Per Cent

What has occurred to create the present problem is strikingly and conclusively shown by statistics for the years 1916, 1929, 1933 and 1938 given in the accompanying table. It will be hard for many to believe, but it is a fact, as the statistics show, that railway gross earnings were almost exactly the same in 1938 as twenty-two years before in 1916—being somewhat more than 3½ billion dollars in each of these years. But consider the differences between all the other figures for 1916 and 1938. Operating expenses and taxes increased 637 million dollars. In consequence, while in 1916 operating expenses and taxes were *only 71 per cent* of gross earnings, they were in 1938 *almost 90 per cent* of gross earnings. Consequently, whereas in 1916 the margin of net earnings was *almost 30 per cent* of gross earnings, or more than a billion dollars, in 1938 it was *only 10½ per cent* of gross earnings, or but 373 million dollars.

### The Real and Sole Problem—Increasing the Margin of Net Earnings

Private ownership of railways cannot live on a 10½ per cent margin of net earnings. Why? Because it is much too narrow to afford the means of keeping railway properties in condition to render good and adequate service and to meet the competition of other carriers. *All additions and improvements must be made from net earnings,* or by the investment of new capital upon which a return must be paid from net earnings. No business or industry can long stand still, much less long retrogress. It must steadily *improve* its product or service, and *increase* the efficiency of its plant

and operations, or it must die. Because their margin of net earnings has been becoming so narrow, the physical properties of the railways have been steadily deteriorating for some years. The improvements in some equipment and other facilities they have made have been much more than offset by a decline of 600,000 in the number of their freight cars and of 15,000 in the number of their locomotives, and by the deterioration of their permanent structures. There is no means whatever of stopping this retrogression excepting by means that will *increase their margin of net earnings.*

### Why "Scaling Down" is No Solution

It is claimed that "scaling down" their indebtedness will help. Perhaps it will, but only to a very limited extent, because each business or industry, in order to carry on and *progress,* must constantly raise and invest new capital; and it makes no difference whatever in the *total* amount of capital required whether it is derived from net earnings, or is raised by the issuance of bonds, or by the issuance of stock, or is secured by all these means, as in the past. Most of those who advocate "scaling down" railway indebtedness at the same time advocate large railroad borrowing from the government. This is not only an explicit admission of the need for the investment of new capital, but also a tacit admission of the need for widening the margin of net earnings. For the net earnings made in 1938 were equivalent to a 5 per cent return on an investment of less than 7½ billion dollars. Therefore, even if present outstanding railway capitalization were scaled down to 7½ billions dollars, or about 75 per cent, *there would still have to be an increase in net earnings to make possible the additional investment the need for which is admitted.*

### 1916 to 1929—and 1933 to 1938

How was the margin of net earnings reduced from almost 30 per cent of gross in 1916 to only 10½ per cent of it in 1938? The statistics in the accompanying table give the answer. There was a large increase in gross earnings between 1916 and 1929 because freight traffic increased and rates were advanced. Operating expenses and taxes increased relatively more, and the margin of net earnings declined to 20 per cent in 1929. But because this was 20 per cent of much larger gross earnings it produced more net earnings than were earned in 1916.

Then came the depression; and gross earnings declined relatively more than expenses, with the result that in 1933 the margin of net earnings was only 15½ per cent of greatly reduced gross earnings. That seemed bad enough. But much worse was to follow. Compare the figures for 1933 and 1938. Gross earnings *increased* between these years almost a half billion dollars; but the margin of net earnings *decreased* from 15.3 per cent in 1933 to 10.5 in 1938, resulting in 100 million dollars less net earnings in 1938 than in 1933. Why did this occur? Because between 1933 and 1938 operating expenses and rentals increased almost a *half billion dollars* and taxes increased *91 million dollars.* Thus did the railroads "recover" under the New Deal.

**Railway Results in 1916, 1929, 1933 and 1938**
*(Figures are stated in thousands)*

| | 1916 | 1929 | 1933 | 1938 |
|---|---|---|---|---|
| Gross Earnings ... | $3,596,068 | $6,278,358 | $3,094,196 | $3,565,491 |
| Operating Expenses (Including rentals) | 2,398,870 | 4,629,977 | 2,370,277 | 2,851,865 |
| Per cent of Gross Earnings ..... | 66.7 | 73.8 | 76.6 | 79.9 |
| Wages charged to Operating Expenses | 1,365,776 | 2,674,086 | 1,336,214 | 1,658,884 |
| Per cent of Gross Earnings ..... | 38.0 | 42.6 | 43.2 | 46.5 |
| Taxes ..... | 157,113 | 396,683 | 249,623 | 340,780 |
| Per cent of Gross Earnings ..... | 4.4 | 6.3 | 8.1 | 9.6 |
| Operating Expenses (including rentals) and taxes ..... | 2,555,983 | 5,026,660 | 2,619,900 | 3,192,645 |
| Per cent of Gross Earnings ..... | 71.1 | 80.1 | 84.7 | 89.5 |
| Net Earnings (Net Operating Income) | 1,040,085 | 1,251,698 | 474,296 | 372,846 |
| Per cent of Gross Earnings ..... | 28.9 | 19.9 | 15.3 | 10.5 |
| Net Income (after fixed charges) ... | 646,881 | 896,807 | def. 5,863 | def. 122,912 |
| Revenue ton-miles .. | 362,444,397 | 447,321,561 | 249,223,180 | 290,154,410 |
| Revenue passenger-miles ..... | 34,585,952 | 31,074,135 | 16,340,510 | 21,633,140 |

Thus was the margin of net earnings reduced to the *lowest percentage of gross ever known* excepting in 1918, 1919 and 1920 when net earnings, because of war-time government operation, were guaranteed by the government.

### How About the Greatly Increased Operating Expenses and Taxes?

We repeat—the railroad problem is *solely the problem of increasing the margin of net earnings.* How solve it, then? Only either by (1) reducing operating expenses and taxes, or (2) increasing gross earnings without correspondingly increasing operating expenses and taxes, or (3) both reducing expenses and taxes and increasing gross earnings. Proposals the adoption of which would have other effects might accomplish other purposes of those making them, but would contribute *absolutely nothing* toward enabling a privately-owned and operated railroad industry to function in the public interest, and private ownership to survive.

First, then, what proposals are being made for reducing operating expenses and taxes? Consolidations and co-ordinations—but with conditions demanded by some interests that are better calculated, on the whole, to maintain or increase expenses than reduce them. Changes in the Railway Labor Act—advocated by the Transportation Conference, and still part of the original "railroad plan," but not being pushed by the Association of American Railroads because not included in the Committee of Six's program.

### How, then, About Gross Earnings?

Prospects of any action tending to reduce operating expenses are very poor—and prospects of any reduction of taxes are, if possible, still poorer.

How, then, about increases in gross earnings? Changes in government policies now retarding general business recovery would be most helpful in increasing railway traffic and earnings—but emphasizing the necessity of them for helping solve the railroad problem is bad form because tending to antagonize New Dealers whose support of transportation legislation is needed. Proposed repeal of laws requiring reduced rates for government traffic on land grant lines meets hardly any opposition and would, of course, increase gross earnings—but only a few million dollars a year. Proposed legislation to equalize government regulation of all carriers and to require commercial carriers by water and highway to pay reasonable tolls or rentals for their use of public property would substantially increase railway traffic and gross earnings, and is demanded by both railway management and railway labor—but stoutly opposed by certain Big Business interests that benefit at the expense of the railroads and the public by present government transportation policies. Therefore, many politicians evade the plain issue of fairness and public interest presented.

Another proposal tending to increase railway gross earnings is for changes in the rate-making rule of the Interstate Commerce Act that would give railway management more freedom in adjusting rates and would direct the Interstate Commerce Commission to give more consideration to the effects of its rate regulation upon railway earnings. But this proposal also is opposed by traffic managers of Big Business—who nevertheless continue professing to be against excessive government regulation of business and in favor of earnings that will enable railway private ownership to live and flourish.

### The Fools of Europe—and the Bigger Fools of America

Thus we have the plain necessity for *widening the margin of railway net earnings* as a contribution toward national recovery and the salvation of private ownership—and railway managements, railway labor, business interests and politicians at loggerheads regarding almost every proposal really tending toward accomplishment of that necessary result. And meantime, the margin of railway net earnings continues ruinously narrow. And meantime, because of our national economic dumbness, we make about as little progress in solving our other great economic problems as in solving our railroad problem. And meantime, the depression—or is it still the "recession"?—continues dragging its weary length along, keeping the country's total volume of production and commerce still 30 to 40 per cent smaller than it averaged in the five years 1925-1929.

How can the politicians and people of the United States presume to shake a long, scornful and virtuous finger at the fatuous and suffering peoples of Europe? It is true they are making fools of themselves over there; but the American people are making much greater fools of themselves—and with much less excuse.

# Terminal Handling of L. C. L.

From Boston to Washington; Pittsburgh to New York; Los Angeles to San Francisco; Chicago to Memphis; Dallas to Big Spring, and between many other points throughout the country the inauguration of high-speed merchandise trains has enabled overnight delivery to be made on l.c.l. shipments from originating points to destinations as much as 500 miles distant. This movement of package freight at passenger train speeds has returned to the railways large quantities of freight that would otherwise have gone to competing agencies, and represents a considerable advance over conditions which prevailed only a few years ago. It represents a desirable return, too, to conditions prevailing twenty or thirty years ago, when, to quote the old timers: "Merchandise was the hottest stuff on the railroad." The return of l.c.l. traffic to the classification of "hottest stuff," when the traffic volume, actual or potential, is sufficient to justify the operation of such special fast trains, inevitably means more revenue, since a car loaded with fifteen tons of this class of traffic may bring an average return of more than $200.

Such fast trains, however, represent only a partial approach to the eventual solution of the problem of how to regain merchandise traffic. Between points on the same railroad such methods are highly effective, but a large percentage of the l.c.l. freight is interline traffic, or would be, if the railways were handling any great amount of it. On the face of it, there seems to be little reason why merchandise moving from Indianapolis to Chicago should get there any faster than, for example, merchandise from South Bend, Ind., to Milwaukee, Wis., an approximately equal distance. The fact remains that it does, because the Chicago terminal intervenes between South Bend and Milwaukee, and that makes all the difference. Nor is the Chicago terminal alone in forming a catchbasin where merchandise freight is delayed for one or two days or more. Practically every terminal in the country exercises a similar blight over l.c.l. traffic passing through in interchange between one railroad and another.

There are terminals, however, where this is not the case and where mutual co-operation and co-ordination have changed the picture. Cincinnati, Ohio, is one and Buffalo, N. Y., is another. In neither of these terminals does one see the all-too-common sight of merchandise, after traveling long distances at high speed, piled up on transfer platforms awaiting someone's convenience to be moved further. Cincinnati and Buffalo have no magic formula, and their successful solving of the problem of handling merchandise through terminals is based on nothing more complex than co-operation and mutual assistance between the railways entering those cities. What has been done at these two terminals, as well as at a few others in scattered localities, can be done in any terminal, but it can only

be accomplished by breaking down the suspicious, antagonistic attitude that all too often exists between the terminal officers of different lines.

## Equipment Buying Gains in First Quarter

The volume of railway equipment buying in the first quarter of the year has been more than double that of the corresponding three months of 1938. The total of 3,007 freight cars purchased thus far in 1939 is more than three times the number ordered in the corresponding quarter of 1938, while the 74 locomotives and 107 passenger-train cars so ordered represent more than 100 per cent increase over both locomotive and passenger equipment totals for the comparable 1938 period.

Equipment manufacturers received orders during March for 63 locomotives (55 steam and 8 Diesel-electric), 1,000 freight cars and 60 passenger-train cars. The month's locomotive total is greater than that for any month since May, 1937, while the passenger-train car figure exceeds that of any month since March, 1937. An order for 11 locomotive tenders was also placed during the month and two steam locomotives were purchased for service in Colombia. Canadian builders and company shops received orders for 2,075 freight and 15 passenger-train cars during March.

At time of writing there are inquiries outstanding for, or contemplated purchase of, a total of 43 locomotives, 7,168 freight cars and 27 passenger-train cars for domestic service. Few of these pending commitments originated during the month; the greater part are carry-overs from the early weeks of the year. March rail orders amounted to 73,651 tons, which brings the total for the first quarter of 1939 to 405,481 tons, or more than three times the volume purchased during the corresponding quarter of 1938.

## *What Will the Traffic Bear?——8*

Some railway managers fear that rate changes necessary effectively to meet truck competition would entail revenue losses which the railroads cannot afford. Let's see whether there is any basis for this fear. Approximately a billion dollars in revenue is involved in competing truck traffic; and the situation is rapidly becoming more serious—because the trucks showed a 25.7 per cent gain over last year in their February traffic, while railroad merchandise traffic increased only two-thirds of 1 per cent. Most of the responsible trucking companies are making money hand-over-fist.

Traffic tests in the Eastern, Southern, and Western class rate cases show that the weighted average revenue from l. c. l. traffic averages less than third class. So, herewith are the rate adjustments the situation calls for: Add 15 cents for pick-up and delivery to all traffic below third class. Increase all l. c. l. rates now less than fourth class to fourth class. Reduce the rates on all traffic weighing 20 lb. per cu. ft. and over, which is now rated higher than third class, to third class, and give free pick-up and delivery to this consolidated traffic (with a minimum not less than the basis above proposed for traffic rated less than third class). Make quantity rates to reflect the lower unit costs of handling quantity shipments.

Such readjustment would deprive the trucks of the opportunity they now enjoy to pick and choose among approximately 84 per cent of the total merchandise traffic. Then, if the railroads would readjust the rates on the remaining light-weight traffic (only 16 per cent of the total) to cause such rates to bear the same relationship to truck costs as the above-suggested rates would on the heavier-density traffic, such readjustment would produce more revenue than is being derived from this business today. Moreover, with these changes, the railroads would have a rate structure which would prevent the trucks from handling anything at a profit except local traffic. With the "cream" thus taken out of the movement of much of the traffic the trucks are now handling, they could not afford, as they can today, to pick up return loads at rates only a shade above gasoline and labor costs.

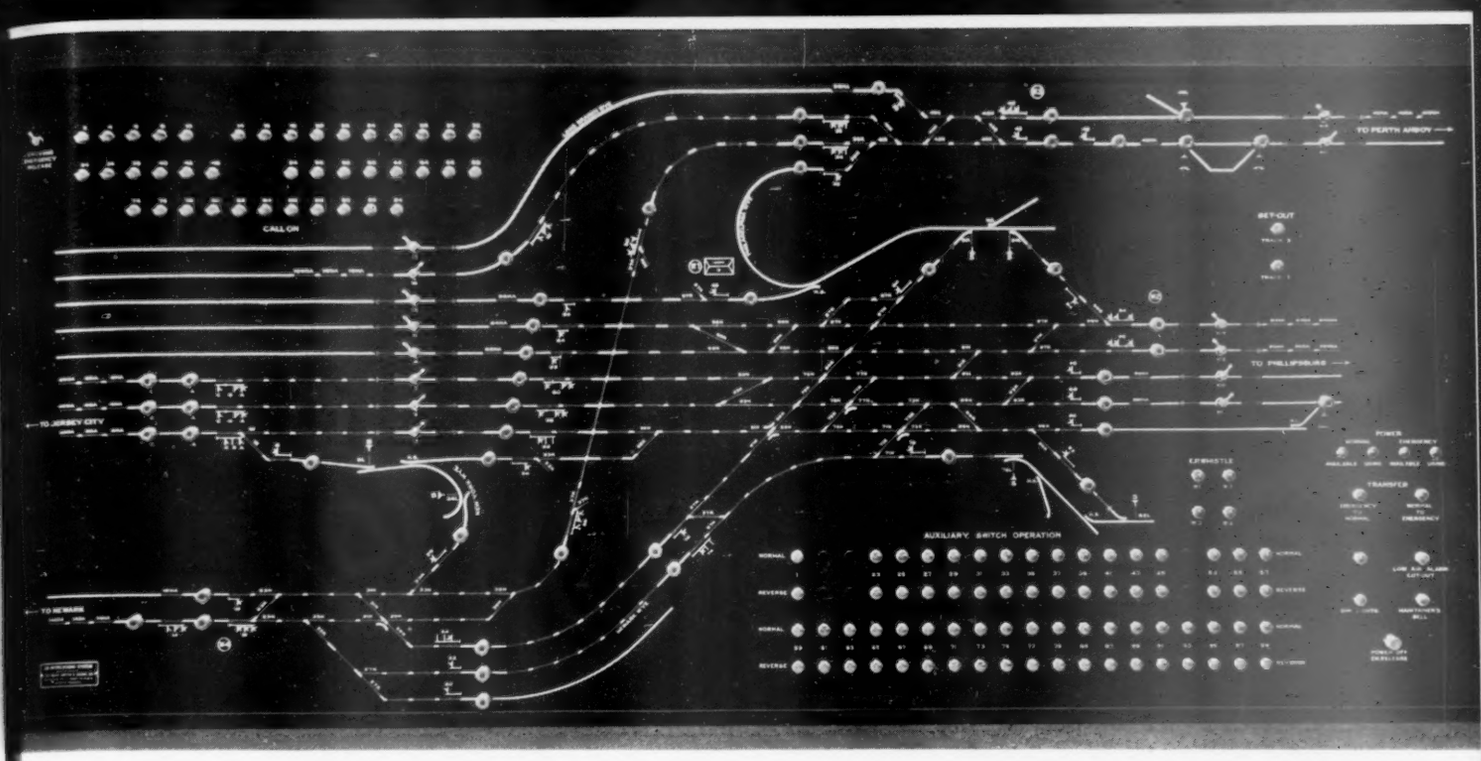
In addition to this suggested revision, the railroads could with profit methodically search out carload traffic now moving by truck and, forgetting the classification rates, make rates sufficiently lower than the truck costs to place the traffic out of the trucks' reach (that is, of course, where such new rates would yield a definite profit to the railroads). Such procedure would further improve railroad traffic and revenue, and make it more difficult for the truck to operate beyond the local radius where it really is economically superior to the railroad.

Evidence in the principal minimum truck rate proceedings before the Interstate Commerce Commission indicate that these proposed changes would not reduce materially the present rate level on traffic now moving by rail.

Such a readjustment would not destroy traffic or cause shippers to pay charges any higher than they were paying before the railroads gave them free pick-up and delivery. Neither could shippers reasonably complain that their rate relationships would be materially disturbed.

If the railroads should establish such a basis of rates, they would also be justified in asking the I. C. C. to prevent the continuance of many thousands of existing truck rates which do not nearly reflect full handling costs.

Such an effort by the railroads, based on sound economic principles, to help themselves out of their present plight should command fullest government and public support.




**The Panel of the Route-Control Interlocking Is 31 In. High and 6 Ft. Long, and Includes a Diagram of the Track Layout, 40 Buttons for Controlling Routes, and Indications of Track Occupancy, Routes Lined Up, Switch Indication, Etc.**

# Route Interlocking on the C. R. R. of N. J.

## Electro-pneumatic plant at Elizabethport, N. J., handles 500 movements daily — Forty route buttons control 57 signals, 39 single switches, 3 slip switches and 4 derails

**By F. W. Bender**

Signal Engineer, Central Railroad of New Jersey

THE route-control, electro-pneumatic interlocking, known as "RU" placed in service on the Central Railroad of New Jersey at Elizabethport, N. J. on November 27, 1938, is of the "UR" type. Because of an extensive grade separation project, including the elimination of 13 railway-highway crossings in this city, the track layout had to be altered so extensively that the previous interlockings could not be rebuilt to handle the new track arrangement, and, therefore, a single interlocking embracing the entire layout, operated from a central point, was considered the most desirable and least expensive.

Elizabethport is an important junction point on the main traffic artery of the C. R. R. of N. J. From Jersey City Terminal, on the west side of the Hudson river, opposite New York City, this four-track main line extends westward 9.6 miles to Elizabethport, and thence continues westward through Bound Brook and Phillipsburg to the anthracite coal region, as well as to various connections with other roads. This line carries not only the freight, through passenger, and suburban passenger trains of the Central of New Jersey, but also through trains of the Reading between Philadelphia, Pa., Harrisburg, and Jersey City, N. J., as well as through trains of the Baltimore & Ohio operating into and out of Jersey City.

### Main Line and Yards

The main line track layout through Elizabethport includes seven tracks, with a passenger station platform between tracks No. 6 and 4, and another platform between tracks No. 3 and 5. Two No. 20 crossovers, No. 63 and 65, facilitate high-speed train movements from one track to another.

An eastward freight yard is located south of the main line west of the interlocking tower, and a westward freight yard is located on the opposite side of the main line. The entrances and exits at the east end of both of these yards are controlled by "RU" interlocking, and at the west end by "GW" interlocking. Eastbound freight trains of the C. R. R. of N. J., as well as those of the Baltimore & Ohio and the Reading, set out cars in the eastward yard where trains are made up for Perth Amboy and seashore points. Drill trains are made up in the eastward yard to deliver cars to various industries in Elizabethport and Newark, and to various points on the main line. Inbound trains from the Perth Amboy

View Showing Tower at the Left and an Eastbound Passenger Train on Track 3

line pull into the westward yard. Switch runs, which pick up cars at industries in the area mentioned above, set out these cars in this yard. Westbound trains are made up in this yard and pull out westward on the main line. The switches connecting the yard leads with the yard are equipped with spring mechanisms and are electrically locked; these include 82 and 78 in the westward yard, and 80 and 84 in the eastward yard.

### Track Layout Involves Important Junctions

At Elizabethport there is a junction with a double-track line, known as the E. & P. A. branch, which extends southward through Perth Amboy, to the seashore resort cities of Atlantic Highlands, Long Branch, Point Pleasant, and Atlantic City. Also at Elizabethport there is a junction with a double-track line, known as the N. & E. branch, which extends northeast seven miles to Newark, N. J., where this branch connects with another branch leading to the Jersey City Terminal. A single track extends across the seven tracks in the main-line layout at Elizabethport, to connect the E. & P. A. and the N. & E. branches. Four wyes are provided in the track layout to handle the various junction moves.

When designing the plant, it was evident that four of the switches would be used principally for making switching and rounding movements, under which circumstances it would be of advantage to have them operated by hand-throw stands rather than being controlled as a part of the interlocking. These switches, No. 47, A-47, 49 and 96, on the E. & P. A. branch and on the main line west, are equipped with electric locks.

### Train Speeds and Volume of Traffic

The speed limits in effect on the various routes through this plant are an important factor in the length of time that a train movement ties up the conflicting routes. The speed limit on the main line tracks is 70 m. p. h., and on the Newark Bay bridge, 40 m. p. h. On the Long Branch wye, on the westward track of the Newark wye, and on the single-track connection over the crossing, the limit is 30 m. p. h. The speed limit on the ladder track over the main tracks, on the eastward track of the Newark wye, and on the Philadelphia and the New York wyes is 15 m. p. h.

During the winter, the traffic moving over the plant consists of 255 regular scheduled passenger trains and approximately 100 freight trains daily in addition to switching moves. During the morning, the preponderance of traffic is eastbound, the peak being between 7 a. m. and 9 a. m., while between 4:30 and 6:30 in the afternoon, the preponderance is westbound. Switching and connecting movements must be interspersed between through movements. On frequent occasions, as many as seven or eight movements are being made simultaneously on different parts of the plant. On the average, a move is made through the interlocking every 180 seconds. During the summer months, due to travel to and from seashore points, the traffic is much heavier, especially during week ends. These conditions necessitated a type of interlocking that was fast, safe, and flexible, because in many instances only a few seconds are available in which routes may be changed, after being released by sectional route locking, in order to prevent delays or stops to trains approaching the interlocking.

### Type of Interlocking Selected

After careful study, a decision was made to install a route-type interlocking as the most accurate means of controlling a large, busy, interlocked layout. This type is of particular advantage over the lever type for such layouts, since the route-type control, which eliminates separate operation of individual functions, permits greater speed in setting up routes. If a unit-lever type machine had been used for this plant, a total of 87 levers would have been required. Specifications were prepared for both electric and electro-pneumatic types of interlocking. After public bidding, the contract was awarded to the Union Switch & Signal Company, which was the lowest bidder for its route-type of interlocking with electro-pneumatic switches.

The new control cabinet at Elizabethport, "RU," is 7 ft. 4 in. long, 5 ft. 11⅞ in. high and 2 ft. 6⅞ in. deep, and has a control panel 31¼ in. high and 6 ft. 1¼ in. long. The panel is a steel plate, the front being treated with baked enamel having a dull black surface, which minimizes the reflection of light. The entire track layout is reproduced, in miniature, on this panel, each track being represented by moulded translucent glass sections, representing the track circuits, which are fitted in slots cut in the steel plate. These glass sections are grouped to represent track circuits and routes. Each signal is represented by a miniature signal symbol, and there is a push button on the line representing the track adjacent to the symbol. Thus there is a button for each signal where a route through the plant may start, these being known as route buttons. A total of 40 of these buttons are included on the panel.

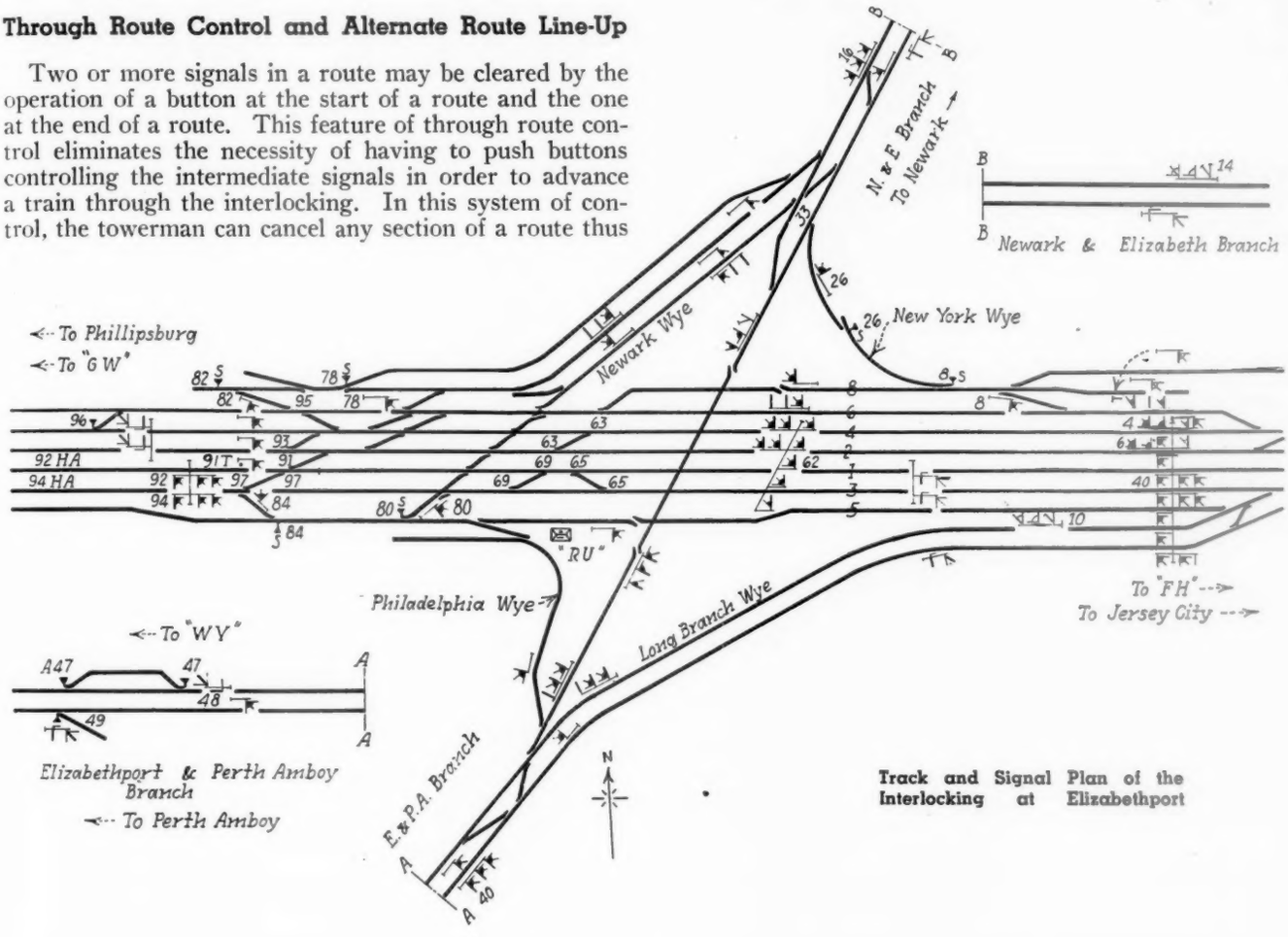
The operation of a button initiates the setting up of a route, and subsequent operation of this same type of button, at the location corresponding to the departure

The Eastbound Crusader Passing the Westward Home Signal Bridge at the Passenger Station

end of the route, completes the manipulation; following which the switches move to their proper position and subsequently the signal or signals clear. When the first route button is pushed to line up a route, a short section of track adjacent to each possible leaving route button is illuminated white, thus indicating the available exits. The first button operated marks the start of the route, and thus determines the signal or signals which will be cleared. The second button establishes the end of the route or destination of the train. Thus, the same push buttons are operated in reverse order for a move in the opposite direction.

### Through Route Control and Alternate Route Line-Up

Two or more signals in a route may be cleared by the operation of a button at the start of a route and the one at the end of a route. This feature of through route control eliminates the necessity of having to push buttons controlling the intermediate signals in order to advance a train through the interlocking. In this system of control, the towerman can cancel any section of a route thus




Track and Signal Plan of the Interlocking at Elizabethport

established, in order to hold a train at any particular signal within the interlocking limits.

In some instances, alternate routes are available within the plant for a train passing from an arrival point to a departure track. For example, between signal 94 and 62, the preferred route is via crossover No. 97 reversed. A secondary route, however, may be arranged via No. 59 reversed. The control is so arranged that normally when route buttons 94 and 62 are pushed, the preferred route will line up. However, if track circuit 91 is occupied with crossover 91 reversed, then the secondary route will automatically become established. If, however, the towerman desires to set up an alternate route, with no train in the plant, he can do so by means of the auxiliary switch-operating buttons, as outlined by a table showing the conditions under which these routes may be established.

The route buttons operate on the non-stick principle, so that each button returns to normal position by spring pressure as soon as the operator removes his finger. The control system is automatically restored to normal, following the passage of a train. The switches, however, remain in the same position as last used. Another route set-up, affecting these switches, will not require their movement if they are already positioned properly for the new route. After a route has been set up, and before a train has occupied the approach section, the towerman can cancel the route by *pulling* the button which was first operated. If a route is to be taken away from a train which has already entered the approach section, the towerman pulls the button first operated, which causes the signal to display the stop aspect, but approach locking prevents the operation of all switches in the route, as well as the establishing of any conflicting route until a proper time interval has expired.

### Signals and Approach Locking

The bottom unit on signals 4 and 6 and the top unit on signals 10 and 14 are semi-automatic, non-stick. After their respective controls are once established, they clear automatically as each train clears the block. To restore these signals to the stop position, all that is necessary is to pull their respective route-control buttons.

All signals, except call-on signals, are automatically restored to stop when accepted by a train. The call-on signals, however, must be restored to stop by pulling the entrance route button. Approach locking is effective on all signals when a train is on the proper approach indication. If it should be desired to cancel a route under such conditions, it will be impossible to change the route for a period of approximately two minutes, during which

time the continuous white line of light on the control panel will persist. This arrangement prevents the establishment of any conflicting routes for that period of time.

Eleven signals on the plant do not have approach sections. Accordingly, whenever a route is lined up which includes these signals, and it is wished to cancel this route by pulling the entrance button, the time locking, as mentioned above, is effective for the two-minute period. In all other cases, if a route is cancelled and a train is not on the approach section, the time locking will not be in effect and the plant is released for positioning other routes.

### Indications of Routes, Track Occupancy and Switch Position

The translucent glass sections representing the tracks in the face of the panel are operated to display three different types of indications. Normally the sections are dark. Behind each section there are two lamps, one of which will throw white light through the section, and the other will throw red light through it. When a route is lined up, the sections representing the track and switches involved are illuminated to show a strong white light on a continuous line representing the route. As a train enters the route, the illumination in each position of the diagram representing each track section is changed from white to red. As the rear of the train clears each track section, the illumination is extinguished in each corresponding section, thus returning the indication to normal, i.e., non-illuminated.

**Spring Switch with an Electric Lock — Note Lamp on Top of Case**

Information as to whether each switch is in the proper position and locked is indicated by means of short sections of the track diagram representing the switch leads. If any switch is not in proper agreement with the route set-up, established by the operation of the route-control buttons, the short sections of the diagram embracing the switch will remain dark. While the switch is in transit (approximately one second) the short diagonal section, which indicates the switch reversed, will flash red. When the switch completes its movement to the position required for the route being lined up, the switch indication section is illuminated white as a part of the indication of a complete route.

By the use of electro-pneumatic switch machines, which operate quickly with an abundance of power available, all the switches in a route are positioned simultaneously. Consequently the changing of a route requires a minimum of time.

Information concerning the aspects being displayed by a signal is indicated in each instance by lamps, which are mounted behind the corresponding route buttons, and which illuminate a glass rod located in the center of the button. Normally the lamps are extinguished. When the first button of a route set-up is operated, the indication lens in that button is illuminated to show red. This indicates that the route set-up is still incomplete and that the signal has not cleared. As soon as the exit button is operated and the route is completed by the proper positioning of the switches, the signal clears, and the indication in the button changes from red to green. This indication burns steadily for a slotted (track-circuit controlled) signal, including high-speed, medium-speed and low-speed signals.

If the switches are properly alined for a particular route, but the route is occupied, the call-on aspect can be displayed by pushing the call-on button corresponding with that signal. In such an instance, when the signal clears, the indication given in the first route button is a flashing green rather than a steady burning green light. A call-on signal must be manually cancelled by *pulling* the entering button. The 48 call-on control buttons are located in three rows in the upper left section of the panel.

### Individual Control of Power Switches

A group of push buttons at the lower right section of the panel are provided for the auxiliary control of power-operated switches. Two buttons are provided for each switch, one to control the switch to the normal position, and the other to the reverse. When a switch is being tested or adjusted, the operation of the switch should be under the direct control of the towerman, entirely separate from the route-control system. Furthermore, when a layer of ice or a block of coal obstructs the operation of a switch point to prevent it from making its complete movement and from being locked up, separate individual control of each switch is necessary in order that the switch may be moved back and forth to crush the obstruction. When a switch is being operated by the individual control buttons, the completion of a normal or reverse switch operation is indicated by illuminating a short section of the track diagram in the normal or reverse switch lead, as previously explained. However, if the switch fails to operate, one of the indication sections will flash white instead of remaining dark, as under normal operation.

The circuits are so arranged that any existing set-up of route control must be cancelled before operating switches by means of the individual control. As a result, the towerman cannot, inadvertently, by individual control, operate a switch in a route which has been established by route control.

### Traffic Direction Levers and Locking

Traffic locking is provided on (a) the eight signaled tracks between "RU" and "FH," on the main line east; (b) on the two signaled tracks on the E. & P. A. branch between "RU" and "WY," 1.9 miles; and (c) on the four signaled tracks between "RU" and "GW," on the main line west of Elizabethport. On the "RU" control panel a miniature lever and two arrow indicators are placed on each section, which represent each track between "RU" and the plants mentioned above. Each lever is normally in the position corresponding with the direction of traffic on that particular section of track, and under such conditions an arrow in the line, repre-

senting the track pointing in the direction corresponding to the lever, is lighted white.

In establishing reverse traffic on tracks, traffic blocks must be unoccupied and no moves must have been initiated on the track on which traffic is to be reversed. Initiation of a reverse traffic move must be made by the towerman at the entering end of the traffic block.

### Control of Electrically-Locked Spring Switches

Two electrically-locked spring switches are located on the New York wye, two at the entrance to the westward yard, and two at the entrance to the eastward yard, which are equipped with Pettibone-Mulliken oil-buffer mechanisms. As arranged, these spring switches furnish protection equivalent to derails. In order to permit a train to enter the interlocking through the spring switches on the New York wye, the route buttons 8 or 26, as the case may be, are operated in the regular manner and the corresponding signal will clear. The clearing of the signal completes a circuit which unlocks the switch. A red light will persist on the control panel in the tower until the switch has been restored to its normal position and locked. The train entering the New York wye trails through a spring switch.

In order to clear the signals for trains moving into either the westbound or the eastbound yard over the spring switches, permission must first be obtained from the yardmaster in the respective yard office. If the yard is clear to receive the train, the yardmaster will acknowledge the call by placing the miniature lever in his office for the required yard lead in the reverse position. This will cause the arrow for that particular yard lead on the control panel in the tower to show a white light. The towerman can then establish the route to the yard in the usual manner.

When a train is ready to leave either of the yards and enter the interlocking, a trainman unlocks and opens the door on the electric lock at a spring switch. The opening of this door causes the short glass section indicator, representing the spring switch electric lock on the control panel in "RU" tower, to be lighted red and also causes a bell to ring in the tower. At the time the towerman is ready to accept the train and unlock the spring switch, he operates the route in the regular manner. When the signal in advance of the electrically-locked spring switch assumes the clear position, this releases the electric lock on the spring switch. The "Unlock" is indicated to the trainman by the semaphore indicator going to a 90-deg. position. The trainman can then unlock the spring switch by moving the small lever in the electric lock box from the N to the R position. The spring switch may then be operated by the trainman in the usual manner. After the train movement is completed out of the yard, the switch must be closed in the usual way.

An electric light with a 360-deg. Fresnel lens, encased in a wire guard, is mounted on top of the electric lock box. This lamp lights red when the switch points are not fully closed in their normal position. When a train is stopped by this red light burning, the switch points must be inspected and set in proper position before the train moves over the switch.

### Control of Electrically-Locked Hand-Operated Outlying Switches

The electric locks on the four hand-operated switches are controlled from "RU" tower. These electrically-locked switches are also controlled by approach and time locking. To permit a train to enter the siding, it is only necessary to push the proper control button, and, at the expiration of the approach and time locking period, the switch will be unlocked. When the towerman operates the control button, the white light will indicate that the unlock permission has been given. When the trainman opens the door of the electric lock box, this light will change from white to red. When the train is ready to leave the siding, the trainman opens the door of the electric lock box. This causes a flashing red light to be displayed in the control button for the electric lock and also causes a cow bell to ring in the tower. When the towerman is ready to unlock the switch, he operates the control button in the usual manner.

This plant was planned and installed under the jurisdiction of the writer as signal engineer of the Central Railroad of New Jersey. The circuit work was handled by James J. Coakley, circuit engineer; Fred F. Nolan, field engineer, was in charge of the railroad construction force which carried out the work. The Union Switch & Signal Company supplied the signal and interlocking equipment.

# Creosote Mixtures Used for Wood Preservation

IN the interest of economy in timber preservation, many roads have been experimenting in recent years with creosote-petroleum and creosote-coal tar mixtures for the preservation of cross, switch and bridge ties, and also for lumber, poles and piling, in the hope of developing a mixture equally as effective but less expensive than straight creosote. At the same time, this subject of treating mixtures has been given much study by the American Wood-Preservers' Association, which, to date, has prepared specifications not alone for creosote, but also for an 80 per cent creosote-20 per cent coal tar mixture, and for petroleum for blending with creosote, the latter having been advanced from a tentative standard to a standard at the recent convention at Washington, D. C., on January 24-26.

As a result of the combined study of individual roads and the association, most of the larger roads are today employing creosote-petroleum or creosote-coal tar mixtures for treating cross and switch ties, these mixtures ranging all the way from 40 per cent creosote and 60 per cent petroleum to 70 per cent creosote and 30 per cent petroleum, and from a 50-50 creosote-coal tar mixture to straight coal tar. Most roads continue to use straight creosote for treating bridge ties, lumber and piling, although not a few are also employing petroleum or coal tar-creosote mixtures for treating these classes of timber.

These facts were brought out comprehensively in a survey of preservatives used by American railroads compiled by M. F. Jaeger, superintendent, Port Reading Creosoting Plant, and presented as a part of the report of the Committee on Preservatives at the recent convention of the Wood-Preservers' Association. This survey, which is presented in tabular form herewith, shows in summary form for the first time, the widespread use by the railways of preservatives other than straight creosote, and is of special interest in its disclosure that several roads are using either straight coal tar for treatment, or creosote-coal tar mixtures other than the 80-20 mixture for which the association at present has specifications. Tabulation appears on next page.

# Survey of Preservatives Used by American Railways for the Treatment of Cross, Switch and Bridge Ties, and Lumber and Piling — March, 1938

PRESENTED BY THE COMMITTEE ON PRESERVATIVES BEFORE THE THIRTY-FIFTH ANNUAL MEETING OF THE AMERICAN WOOD PRESERVERS' ASSOCIATION IN WASHINGTON, D. C., JANUARY 24-26, 1939

| Railroad | Crossties Percentage | | | | Switch timber Percentage | | | | Absorption* | Process | Bridge ties and lumber Percentage | | | | Absorption* | Piling Percentage | | | | Absorption* | Process |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Creo. | Pet. | Creo. | Tar | Creo. | Pet. | Creo. | Tar | | | Creo. | Pet. | Creo. | Tar | | Creo. | Pet. | Creo. | Tar | | |
| A. T. & S. F. | 45 | 55 | .. | .. | 45 | 55 | .. | .. | 8 lb. | Rueping | 45 | 55 | .. | .. | 8 lb. for bridge ties; | 45 | 55 | .. | .. | To refusal | Full cell■ |
| | 50 | 50 | .. | .. | 50 | 50 | .. | .. | 8 lb. | Rueping | 50 | 50 | .. | .. | refusal for lumber | 50 | 50 | .. | .. | To refusal | Full cell |
| A. B. & C. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 2.5 gal. per ties, 8 lb. switch timber | Rueping | .. | .. | 80 | 20 | 8 lb. | .. | .. | 80 | 20 | 13 lb. Inland, 22 lb. Marine | Rueping |
| A. C. L. | 100 | .. | .. | .. | 100 | .. | .. | .. | 6 lb. | Rueping | 100 | .. | .. | .. | 12 lb. to 18 lb. | 100 | .. | .. | .. | 18 lb. | Full cell+ |
| B. & O. | 70 | 30 | .. | .. | 70 | 30 | .. | .. | 8 lb. to 8.25 lb. | Boulton and Rueping | 100 | .. | .. | .. | 10 lb. to 12 lb. | 100 | .. | .. | .. | 12 lb. to 15 lb. | Full cell |
| | | | | | | | | | | | 100 | .. | .. | .. | 0.3 lb. per cu. ft. Wolman salts⊙ | .. | .. | .. | .. | ..... | ..... |
| B. & L. E. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 6 lb. | Rueping | .. | .. | 80 | 20 | 12 lb. | .. | .. | .. | .. | ..... | Rueping |
| B. & M. | .. | .. | 50 | 50 | .. | .. | .. | .. | 7 lb. to 8 lb. y.p. ties, | Rueping | 100 | .. | .. | .. | 10 to 14 lb. for lumber | .. | .. | 60 | 40 | 22 to 26 lb. Marine | Full cell |
| | | | 60 | 40 | | | | | 8 lb. to 9 lb. oak ties | Rueping | .. | .. | .. | .. | ..... | .. | .. | .. | .. | ..... | Boulton |
| | | | 80 | 20 | | | 60 | 40 | 9 to 12 lb. birch and maple ties | Lowry | .. | .. | .. | .. | 9 lb. to 10 lb. for bridge ties | .. | .. | .. | .. | 12 to 14 lb. Inland | Lowry |
| | | | | | | | | | 9 lb. for switch timber | Rueping | | | | | | | | | | | |
| C. N. R. (West) | 50 | 50 | .. | .. | 50 | 50 | .. | .. | 7 lb. crossties | Rueping | 100 | .. | .. | .. | 8 lb. | 100 | .. | .. | .. | 8 lb. to 10 lb. Inland 16 to 24 lb. Marine | Rueping, Ful cell |
| | | | | | | | | | 7 lb. switch timber | | | | | | | | | | | | |
| C. N. R. (East) | .. | .. | 60 | 40 | .. | .. | .. | .. | 7 lb. crossties | ..... | 100 | .. | .. | .. | 8 lb. | 100 | .. | .. | .. | 8 lb. to 10 lb. Inland 16 to 24 lb. Marine | ..... |
| | | | | | | | 60 | 40 | 8 lb. switch timber | | | | | | | | | | | | |
| C. P. R. (West) | 50 | 50 | .. | .. | 50 | 50 | .. | .. | 7 lb. | Rueping and Boulton | 50 | 50 | .. | .. | 7 lb. | 100 | .. | .. | .. | 8 lb. Inland, 14 lb. Marine | Burnett, Boiling and Rueping |
| C. P. R. (East) | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 0.5 lb. zinc chloride, 6 lb. to 8 lb. | Burnett, Rueping† | 100 | .. | .. | .. | 0.5 lb. zinc, chloride 8 lb. | 100 | .. | .. | .. | 8 lb. Inland, 14 lb. Marine | Burnett, Boiling and Rueping |
| C. of Ga. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 7 lb. | Rueping | 100 | .. | 80 | 20 | 7 lb. bridge ties; 5 lb. to 18 lb. lumber | 100 | .. | .. | .. | 18 lb. cu. ft. | Rueping, full cell* |
| C. R. R. of N. J. | 40 | 60 | .. | .. | 40 | 60 | .. | .. | 8 lb. crossties | Rueping & Lowry | 100 | .. | .. | .. | 10 to 14 lb. | 100 | .. | .. | .. | 12 to 14 lb. Inland Refusal Marine | Rueping, full cell |
| | | | | | | | | | 9 to 10 lb. switch timber | | | | | | | | | | | | |
| C. & O. | .. | .. | .. | 100 | .. | .. | .. | 100 | 2.5 gal. based on 6x8x8'6" tie | Lowry | 100 | .. | .. | .. | 8 to 16 lb. | 100 | .. | .. | .. | 12 to 16 lb. Inland 16 to 20 lb. Marine | Full cell & empty cell |
| C. B. & Q. | 50 | 50 | .. | .. | 50 | 50 | .. | .. | 8 lb. | Rueping | 100 | .. | .. | .. | 10 lb. posts, stringers and caps, 6 lb. ties, etc. | 100 | .. | .. | .. | 14 lb. | Rueping |
| C. & E. I. | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 0.86 gal. per cu. ft. | Lowry | .. | .. | 60 | 40 | 1.3 gal. per cu. ft. | .. | .. | 60 | 40 | 1.3 to 1.72 gal. per cu. ft. | Lowry |
| C. G. W. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 6 lb. | Rueping | 100 | .. | .. | .. | 14 lb. | 100 | .. | .. | .. | 16 lb. | A.R.E.A. |
| C. M. St. P. & P. | 50 | 50 | .. | .. | 50 | 50 | .. | .. | 8 lb. | Rueping | 100 | .. | .. | .. | 10 to 12 lb. | 100 | .. | .. | .. | 10 to 14 lb. | Boulton |
| C. R. T. Co. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 6 lb. | Rueping | 100 | .. | .. | .. | 6 lb. bridge ties 8 to 12 lb. other tbr. | 100 | .. | .. | .. | 16 lb. | Rueping and full cell♦ |
| C. & N. W. | 40 | 60 | .. | .. | .. | .. | .. | .. | 8 lb. | Rueping & Burnett‡ | 40 | 60 | .. | .. | 8 lb. minimum | 100 | .. | .. | .. | 10 lb. minimum | Boulton & Rueping |
| | | | | | | | | | 0.5 lb. zinc chloride | | | | | | | | | | | | |
| C. R. I. & P. | .. | .. | 70 | 30 | .. | .. | 70 | 30 | 7.5 lb. | ..... | .. | .. | 70 | 30 | 8 lb. bridge ties 10 to 12 lb. other lumber | .. | .. | 70 | 30 | 16 lb. | ..... |
| | | | 60 | 40 | | | 60 | 40 | | | | | | | | | | | | | |
| C. C. C. & St. L. | .. | .. | .. | 100 | .. | .. | .. | 100 | 2.5 to 3 gal. pine, 2.5 to 3.5 gal. hardwood | Lowry§ | 100 | .. | .. | .. | 8 to 10 lb. | 100 | .. | .. | .. | 12 lb. | Lowry |
| D. & H. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 6 lb. | Rueping | .. | .. | 80 | 20 | 8 lb. | .. | .. | 80 | 20 | 8 lb. | Rueping†† |
| D. L. & W. | .. | .. | .. | 100 | .. | .. | .. | 100 | 2.5 to 3.5 gal. per tie., 10 lb. sw. tbr. | Lowry | 100 | .. | .. | .. | 10 lb. | 100 | .. | .. | .. | 10 lb. Inland, 16 lb. Marine | Lowry |
| D. & R. G. W. | 50 | 50 | .. | .. | 50 | 50 | .. | .. | 7 lb. | Rueping & Lowry | 50 | 50 | .. | .. | 10 lb. | 100 | .. | .. | .. | 12 lb. | Rueping & Lowry |
| D. M. & N. | 100 | .. | .. | .. | 100 | .. | .. | .. | 6 lb. | Rueping | 100 | .. | .. | .. | 6 lb. | .. | .. | .. | .. | ..... | Rueping |
| E. J. & E. | 100 | .. | .. | .. | 100 | .. | .. | .. | 5 lb. | Rueping | 100 | .. | .. | .. | 5 lb. bridge ties; 12 lb. other lumber | 100 | .. | .. | .. | 6 to 12 lb. | Rueping |
| Erie | .. | .. | 50 | 50 | .. | .. | 50 | 50 | 2.5 gal. based on 6x8x8'6" tie | Rueping & Lowry# | 100 | .. | 50 | 50 | 8 lb. | 100 | .. | 50 | 50 | 8 to 10 lb. | Lowry‡‡ |
| | | | | 100 | | | | 100 | | | | | | | | | | | | | |
| F. E. C.▲ | .. | .. | .. | .. | .. | .. | .. | .. | ..... | ..... | .. | .. | 80 | 20 | 14 to 16 lb. | 100 | .. | .. | .. | 16 to 22 lb. | ..... |
| G. N. | 50 | 50 | .. | .. | 50 | 50 | .. | .. | 7 lb. minimum for ties; 8 lb. min. for switch | Lowry | 50 | 50 | .. | .. | 8 lb. minimum | 100 | .. | .. | .. | 10 lb. | Lowry |
| I. C. | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 7 lb. | Rueping | 100 | .. | .. | .. | 8 lb. for bridge ties, 16 lb. for lumber | 100 | .. | .. | .. | 18 lb. | Rueping and full cell |
| I. G. N. | .. | .. | 70 | 30 | .. | .. | 70 | 30 | ¾ gal. per cu. ft. | Rueping & full cell | 100 | .. | .. | .. | 8 lb. for bridge ties & plank; 16 lb. other lumber | 100 | .. | .. | .. | 16 lb. | Rueping |

*In lb. per cu. ft., except as otherwise indicated.

†At Calgary plant ties treated 0.5 lb. zinc chloride—Burnett; ‡ All sidetrack and softwood ties and switch timber treated with 0.5 lb. zinc chloride per cubic foot; §Absorptions may be exceeded 0.30 gal. per tie; #53 per cent treated 50-50; 47 per cent treated 100 per cent tar. Propose use 100 per cent tar for ties and switch timber during 1938; ▲Use untreated cypress exclusively; ■45-55 New Mexico and California plants, 50-50 Texas and Kansas plants; +5,000 ties experimentally with Wolman salts; ⊙Wolman salts for ties and lumber on steel structures. All others creosote oil treatment; *7 lb., 80-20 creosote-tar mixture for bridge ties, 5 lb. creosote for lumber open deck trestles and wharves, 18 lb. creosote for ballast deck trestles; ♦Clean treatment desirable for overhead structures; ††Experimenting on beech, birch and maple ties with 8 lb. retention, 60 per cent creosote, 40 per cent tar mixture; ‡‡80 per cent bridge and lumber treated with 50-50, remainder with 100 per cent straight creosote, 84 per cent piling treated with 50-50, remainder with 100 per cent creosote.

exclusively; ■45-55 New Mexico and California plants, 50-50 Texas and Kansas plants; ▼5,000 ties experimentally with W.

# Survey of Preservatives Used by American Railways for the Treatment of Cross, Switch and Bridge Ties, and Lumber and Piling — March, 1938 — Continued

PRESENTED BY THE COMMITTEE ON PRESERVATIVES BEFORE THE THIRTY-FIFTH ANNUAL MEETING OF THE AMERICAN WOOD PRESERVERS' ASSOCIATION IN WASHINGTON, D. C., JANUARY 24-26, 1939

| Railroad | Crossties Percentage | | | | Switch timber Percentage | | | | Absorption* | Process | Bridge ties and lumber Percentage | | | | Absorption* | Piling Percentage | | | | Absorption* | Proces |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Creo. | Pet. | Creo. | Tar | Creo. | Pet. | Creo. | Tar | | | Creo. | Pet. | Creo. | Tar. | | Creo. | Pet. | Creo. | Tar | | |
| K. C. S. | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 7 lb. | Rueping & Lowry | .. | .. | 60 | 40 | 15 lb. | .. | .. | 60 | 40 | 15 lb. Inland 24 lb. Marine | Rueping and Lowry |
| L. & N. E. | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 8 lb. | Lowry | 100 | .. | .. | .. | 8 lb. | .. | .. | .. | .. | ..... | Rueping§ |
| L. V. | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 2.5 to 3.5 gal. per tie. 10 to 12 lb. Sw. tbr. | Lowry | 100 | .. | .. | .. | 10 to 12 lb. | 100 | .. | 85 | 15 | 15 to 20 lb. | Lowry |
| L. & A. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 6 lb. | Empty cell | 100 | .. | .. | .. | 16 lb. | 100 | .. | .. | .. | Refusal | Empty cell |
| L. & N. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 7 lb. | Rueping | 100 | .. | .. | .. | 12 to 14 lb. | 100 | .. | .. | .. | 18 to 22 lb. | Full cell |
| M. C. | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 9 lb. | Rueping | 100 | .. | .. | .. | 9 to 14 lb. | .. | .. | .. | .. | ..... | Lowry |
| M. K. T. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 6 lb. | Rueping | 100 | .. | .. | .. | 6 lb. | 100 | .. | .. | .. | 16 lb. | Rueping & full cell |
| M. P. | .. | .. | 70 | 30 | .. | .. | 70 | 30 | ¾ gal. per cu. ft. | Rueping & full cell | 100 | .. | .. | .. | 8 lb. ties & plank, 16 lb. for other lbr. | 100 | .. | .. | .. | 16 lb. | Rueping |
| M. St. P. & S. S. M. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 6 lb. minimum | Rueping | 100 | .. | .. | .. | 8 to 10 lb. | .. | .. | .. | .. | ..... | Rueping |
| M. & O. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 6 lb. | Rueping | 100 | .. | .. | .. | 14 lb. | 100 | .. | .. | .. | 17 lb. | Full cell |
| N. C. & St. L. | .. | | 80 | 20 | .. | .. | 80 | 20 | 7 lb. oak ties, 9 lb. gum ties | Rueping | 100 | .. | .. | .. | 16 to 16.5 lb. | 100 | .. | .. | .. | 16 to 16.5 lb. | Rueping |
| N. of Mex. | 50 | 50 | .. | .. | 50 | 50 | .. | .. | 7 lb. | Rueping | 100 | .. | .. | .. | 9 lb. | 100 | .. | .. | .. | 9 lb. and up | Rueping & full cell |
| N. Y. C. | .. | .. | .. | 100 | .. | .. | .. | 100 | 2.5 to 3.0 gal. pine 2.5 to 3.5 gal. Hdwd. | Lowry† | 100 | .. | .. | .. | 8 to 10 lb. | 100 | .. | .. | .. | 12 lb. | Lowry |
| N. Y., C. & St. L. | .. | .. | .. | 100 | .. | .. | .. | 100 | 2.5 gal. based on 6x8x8'6" tie | Lowry | 100 | .. | .. | .. | 8 to 16 lb. | 100 | .. | .. | .. | 12 to 16 lb. | Full and empty cell |
| N. Y., N. H. & H. | .. | .. | .. | 100 | .. | .. | .. | 100 | 8 lb. | Lowry | 100 | .. | .. | .. | 10 lb. | 100 | .. | 80 | 20 | 10 to 20 lb. | Lowry and Bethel |
| N. Y., O. & W. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 3.125 gal. per tie | Lowry | 100 | .. | .. | .. | 10 lb. | .. | .. | .. | .. | ..... | Lowry |
| N. & W. | 100 | .. | .. | .. | 100 | .. | .. | .. | 6 lb. | Rueping | 100 | .. | .. | .. | 6 lb. bridge ties, 12 to 18 lb. lumber | 100 | .. | .. | .. | 12 lb. Inland, 16 to 18 lb. Marine | Rueping and Bethe |
| N. P. | 45 | 55 | .. | .. | 45 | 55 | .. | .. | 8 lb. | Lowry | 100 | .. | .. | .. | 8 to 16 lb. | 100 | .. | .. | .. | 16 lb. Marine | Boulton & Lowry# |
| | | | | | | | | | | | 45 | 55 | | | | 45 | 55 | | | 10 to 14 lb. Inland | |
| P. R. R. | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 6 lb. | Rueping | .. | .. | 60 | 40 | 8 lb. for bridge ties, 6 to 12 lb. other lbr. | .. | .. | 60 | 40 | 12 lb. Inland, 20 lb. Marine | Rueping & Bethel |
| P. M. | .. | .. | .. | 100 | .. | .. | 60 | 40 | 2.5 gal. based on 6x8x8'6" | Lowry | 100 | .. | .. | .. | 8 to 16 lb. full cell & empty cell process | 100 | .. | .. | .. | 12 to 16 lb. | Full cell & empty cell |
| | | | 50 | 50 | | | 50 | 50 | | | | | | | | | | | | | |
| Reading | 40 | 60 | .. | .. | 40 | 60 | .. | .. | 8 lb. crossties 9 to 10 lb. switch tbr. | Rueping & Lowry | 100 | .. | .. | .. | 10 to 14 lb. | 100 | .. | .. | .. | 12 to 14 lb. Inland, Refusal Marine | Rueping & full cell |
| S. A. L. | .. | .. | 70 | 30 | .. | .. | 70 | 30 | 7½ lb. | Rueping | 100 | .. | .. | .. | 20 lb. average | 100 | .. | .. | .. | 21 lb. average | Full cell |
| St. L., & S. W. | .. | .. | 70 | 30 | .. | .. | 70 | 30 | 2.5 gal. based on No. 3 tie. 8 lb. for switch timber. | Empty cell | 100 | .. | .. | .. | 12 lb. | 100 | .. | .. | .. | 15 lb. | Empty cell |
| St. L.-S. F. | .. | .. | 70 | 30 | .. | .. | 70 | 30 | 6 to 7 lb. crossties 6 to 8 lb. switch tbr. | Lowry & Rueping | 100 | .. | .. | .. | 8 lb. bridge ties, 8 to 15 lb. other lbr. | .. | .. | 70 | 30 | 15 lb. to 16 lb. | Rueping & Lowry |
| Sou. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 8 lb. | Rueping | .. | .. | 80 | 20 | 12 to 16 lb. | .. | .. | 80 | 20 | 12 to 15 lb. Inland 16 lb. Marine | Rueping & full cell▲ |
| S. P. | 55 | 45 | .. | .. | 55 | 45 | .. | .. | 8.75 to 9.25 lb. | Rueping | 55 | 45 | .. | .. | 8 to 12 lb., 1 lb. Chromated zinc chloride | 100 | .. | .. | .. | 12 to 15 lb. | Boulton & full cell■ |
| T. C., I. & R. R. Co. | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 6.25 lb. for pine 8.25 lb. for oak | Rueping & full cell | .. | .. | 60 | 40 | 6.25 lb. | .. | .. | 75 | 25 | 9 lb. | Empty cell |
| T. & N. O. | 70 | 30 | .. | .. | 70 | 30 | .. | .. | 8 lb. | Rueping | 70 | 30 | .. | .. | 8 lb. | 100 | .. | .. | .. | 20 to 25 lb. | Full cell, Reuping+ |
| | | | | | | | | | | | | | | | | 70 | 30 | | | 14 to 16 lb. | |
| T. & P. | .. | .. | 70 | 30 | .. | .. | 70 | 30 | 7 lb. | Rueping | 100 | .. | .. | .. | 16 lb. | 100 | .. | .. | .. | 16 lb. | Reuping |
| M. & St. L. | .. | .. | 80 | 20 | .. | .. | .. | .. | 5.5 to 6 lb. | Rueping‡ | .. | .. | .. | .. | ..... | .. | .. | .. | .. | ..... | Do not treat lumber or piling |
| | | | 50 | 50 | | | | | | | | | | | | | | | | | |
| U. P. | 50 | 50 | .. | .. | 50 | 50 | .. | .. | 8 lb. | Rueping & Lowry | 50 | 50 | .. | .. | 8 lb. | 100 | .. | .. | .. | To refusal but not exceeding 16 lb. max. | Full cell or Lowry |
| Va. | .. | .. | 80 | 20 | .. | .. | 80 | 20 | 6 lb. | Empty cell | 100 | .. | .. | .. | 8 lb. | 100 | .. | .. | .. | 16 lb. | Empty and full cell |
| Wabash | .. | .. | 70 | 30 | .. | .. | 70 | 30 | 2.5 gal. based on 6x8x8' tie | Rueping & Lowry | 100 | .. | .. | .. | 6 to 16 lb. | 100 | .. | .. | .. | 12 to 16 lb. | Full cell Rueping & Lowry⊖ |
| W. & L. E. | .. | .. | 50 | 50 | .. | .. | 50 | 50 | 6 lb. | Rueping | .. | .. | .. | .. | ..... | .. | .. | .. | .. | ..... | No lumber or piling treated |
| W. M. | .. | .. | 60 | 40 | .. | .. | 60 | 40 | 6 lb. for cross ties 7 lb. for switch tbr. | Rueping | .. | .. | 60 | 40 | 7 lb. | 100 | .. | .. | .. | 8 lb. | Rueping |

*In lb. per cu. ft., except as otherwise indicated.

†Absorptions may be exceeded 0.30 gal. per tie; ‡Use white oak and Washington fir switch timber untreated; §Some lumber ¼ lb. Z.M.A.; #Both straight creosote oil and 45-55 mixture used for treating lumber and inland piling; ▲Began using 60-40 creosote-tar mixture for crossties latter part 1938; ■Bridge ties or stee bridges treated with 1 lb. creosote-zinc chloride per cubic foot; +Piling treated with No. 1 creosote oil or mixture of 70-30 creosote-petroleum; ⊖Combinations with tar used when specifically authorized.

# Hearing on Senate Transport Bills

## Wheeler gets committee going on consideration of measures introduced by himself and Truman

WASHINGTON, D. C.

HEARINGS on four transportation bills introduced by Senators Wheeler and Truman got under way before the Senate committee on interstate commerce on April 3 with initial consideration of S.2009, the Wheeler-Truman "key bill" which embodies the sponsors' idea of a proper rewriting of the Interstate Commerce Act with the incorporation of such committee-of-six recommendations as they deemed "compatible with the public interest." Other Wheeler-Truman bills on the hearing schedule are S.1869, which would amend the provisions of law relating to railroad reorganizations; S.1310 which would give the Interstate Commerce Commission regulatory authority over the so-called "outside investments" of railroads; and S.2016, the holding company bill introduced late last week and reviewed elsewhere in this issue. Also, Chairman Wheeler's remarks at the opening session indicated that the hearings will be broad enough to cover other bills dealing in one way or another with matters covered in the committee-of-six recommendations, including S.1660 introduced by Senator Reed, Republican of Kansas, as noted in the *Railway Age* of March 4.

### Wheeler Would Expedite Hearings

Thus has the Senate committee got to work on transportation legislation a few days after the House committee on interstate and foreign commerce had completed hearings extending over the 10 weeks since January 24. But Chairman Wheeler is indicating a disposition to move with expedition, getting started on Monday and holding both morning and afternoon sessions. Also, he issued a warning to waterway interests that they should pick out a few representative witnesses, because he would not permit a great number of appearances "for the purpose of delaying action on the bill." He hoped to conclude the consideration of S.2009 this week, after which S.1869, dealing with financial reorganizations, will be taken up. And while the hearings on the latter and other measures go on the chairman has indicated that it will be his purpose to put S.2009 in shape for reporting separately in the Senate.

The first appearances in connection with S.2009 were those of Carl R. Gray, vice-chairman of the Union Pacific, and George M. Harrison, chairman of the Railway Labor Executives' Association, who were respectively among the management and labor members of the committee-of-six. They were followed by Judge R. V. Fletcher, vice-president and general counsel of the Association of American Railroads, who said he spoke primarily for the Class I railroads and "after a fashion" for the committee-of-six, because the A. A. R. board of directors endorsed that committee's report. As he stated at the outset, the A. A. R. general counsel's purpose was to discuss the detail of S.2009, pointing out what it contains and what changes it proposes to make in existing law. The bill, he later said, is made up "essentially" of Part I and Part II of the Interstate Commerce Act with an interweaving of provisions to regulate water carriers as contained in the so-called Wheeler-Ramspeck bill which was before Congress in a previous session.

Vice-chairman Gray of the Union Pacific and R. L. E. A. Chairman Harrison completed their presentations at the April 3 sessions. Each gave a highlight review of their respective statements in support of the committee-of-six recommendations, which were made in greater detail at the House committee hearing, as reported in the *Railway Age* issues of February 4 and February 11. Thus any "new evidence" in connection with the Gray and Harrison testimony was brought out in the questions and comments of committee members.

### Directs I. C. C. to Make Subsidy Study

Mr. Gray agreed with Chairman Wheeler that S.2009 undertakes to do what the committee-of-six had in mind with respect to treating all transport agencies alike in the matter of regulation; while the chairman told Senator Stewart, Democrat of Tennessee, that there is no thought that rates of all agencies should be made the same. Also, Mr. Wheeler pointed out how the bill directs the Interstate Commerce Commission to make the investigations of the proper role of each transport agency and the subsidy question, which the committee-of-six would make the first business of its proposed Transportation Board.

In the latter connection Mr. Gray explained that the committee-of-six is seeking to give its Transportation Board not only these initial assignments but eventually some of the I. C. C.'s present functions because of a feeling that such functions require "a sort of business experience" not necessary for dealing with rates and other matters proposed to be left with the I. C. C. Chairman Wheeler said he differed with that view because he believed it "inevitable" that jealousy would spring up between the new board and the I. C. C. with the result that it "just wouldn't work out as a practical matter." The Senator's experience with new commissions is that they are always grasping for more power; but he added that the matter is one "for the committee to decide." Senator Reed, Republican of Kansas, said that he agreed that a transportation board was needed, but he thought it should be associated with the I. C. C.

With reference to the rate-making rule, Chairman Wheeler explained how S.2009 adopts the language of the present rule; and Mr. Gray said he would like to see eliminated the stipulation that the commission give consideration "to the effect of rates on the movement of traffic." The witness told how the commission's construction of this language has led it into the realm of management; but Senator Wheeler didn't think it would make much difference whether the phrase was in or out.

### Wheeler Will Have No Fourth-Section Repeal

Also Mr. Gray would like to see the long-and-short-haul clause eliminated from S. 2009 where it is incorporated as section 50. At this point Senator Wheeler came back with a question as to whether the witness wanted any legislation passed. Getting an affirmative reply the chairman went on to warn that there won't be any legislation which includes repeal of the long-and-

short-haul clause passed at the present session wherein "plenty" of members are ready to filibuster on the issue "until next December." Also, the Montanan pointed out that his long-and-short-haul clause applies to all transport agencies; and Mr. Gray conceded that equal regulation for all agencies would take "much of the force" out of the long-and-short-haul-clause repeal arguments. It was the chairman's view that railroads are entitled to have all forms of transport regulated, but they are not entitled to "go out and cut the throat of water transportation."

After Mr. Gray had told Senator Shipstead, Farmer-Laborite of Minnesota, that the numerous elements involved preclude the making of rates on a cost basis, Senator Wheeler emphasized the fact that his bill directs the I. C. C. to recognize the "inherent advantages" of each type of transport. He did this because he said "some propaganda" has been going around with the claim that an attempt is being made to raise water rates to the rail-rate level. Later the chairman explained that the bill's water-carrier provisions are those which have been recommended by the I. C. C. over a period of years. Mr. Gray pointed out that the provisions dealing with reparations did not go as far as the committee-of-six recommended, but he thought they were nevertheless "satisfactory." He closed with a discussion of the committee-of-six recommendations with respect to consolidations and its view as to the impracticability of large-scale co-ordinations.

### Harrison Calls I. C. C. "Biased"

R. L. E. A. Chairman Harrison said he was not prepared to discuss the details of S. 2009 which will be dealt with in a subsequent presentation by Frank L. Mulholland of Toledo, Ohio, counsel for R. L. E. A. Thus the witness directed his presentation to the committee-of-six recommendations, dealing first with the proposed Transportation Board. It is the view of railroad labor, he said, that the I. C. C. is "biased" on the question of certificates of convenience and necessity. All the regulatory body has offered, he added, is the idea of shrinking the railroad plant while it lets motor transport expand. To Mr. Harrison "that's economic nonsense." He is opposed to the I. C. C.'s having anything to do with the physical supply of transportation. Chairman Wheeler thought this was a position opposite to that taken by the motor carriers in pre-Motor-Carrier-Act days when they accused the I. C. C. of being "rail-minded."

The chairman went on to say that in his opinion separate boards breed partisan regulators, adding that the country would be "taking a backward step" if it set up another transport regulatory agency. Mr. Harrison agreed that any board should deal with all transport agencies, as would the proposed Transportation Board which he visualized as a creation for the "rationalization" of the transport industry. He told Senator Minton, Democrat of Indiana, that the I. C. C. has already looked into the matters proposed to be studied by the Transportation Board, and thus he fears a "rewriting" of existing reports. Mr. Harrison wants an entirely new board to look into the situation. Later he said with reference to the investigation of alleged subsidies to highway transport that "one member of the I. C. C." has for some time been "on the verge" of issuing a report which says there is no subsidy; he doesn't want another decision from a judge who has already decided the case.

Chairman Wheeler suggested that the ideal set-up for the desired investigations would be a board of the country's outstanding men; he thinks that the kind of men who would subsequently deal with certificates of convenience and necessity would include political appointees for whose report he "wouldn't give two cents." Mr. Harrison replied that while he would like to have the set-up which the committee-of-six recommended, he nevertheless thought that the investigations in the interest of bringing about a "fair field and no favor" were the important considerations.

### Big Corporations Get Benefits of Waterways

Meanwhile members of the committee had got into a discussion among themselves and with the witness on the public benefits from low-rate water transportation. Senator Wheeler said he agreed that waterways are getting some special favors from government; but he wouldn't have "much fault" to find with that if consumers were beneficiaries. He has found, however, that the principal beneficiaries are the big corporations who use the waterways while figuring the rail freight rate in their prices to consumers. The chairman mentioned the oil, steel and lumber industries in this connection while Senator Reed asserted that no Kansas farmer ever got "a cent more" for his wheat because of a low water transportation rate. Whereupon Mr. Harrison told how he had recently purchased an automobile at a price which included the rail freight rate, only to learn later "upon inquiry" that his automobile had been trucked over the highway at a rate $15 under the rail charge which had figured in the cost to him.

Coming to his discussion of consolidations and co-ordinations, Mr. Harrison said that the "noble experiment" of co-ordinating was probed for three years under the former co-ordinator; and labor now prefers to try a hand at finding some way to employ profitably the existing plant. Railroad labor, he added more specifically, is "absolutely opposed to the practice and theory of co-ordination"; if there is anything in the unification idea they prefer to get it through consolidations, found to be in the general public interest. When the R. L. E. A. chairman recalled how both labor and management favored the discontinuance of the co-ordinator office, Senator Reed observed that in his opinion both had made a mistake. In the Kansan's opinion there is no answer to the railroad problem except consolidations or some form of unification which will reduce costs. Chairman Wheeler called attention to how "very difficult" it is to put over consolidations in the face of opposition from communities affected. Mr. Harrison thought he might as well be frank and say that much of such community opposition is stirred up by railroad labor; and he had no apologies to make for such agitation "to preserve the jobs" of the men he represents.

With reference to railroad capital structures Mr. Harrison thinks there ought to be a "better balance" as between borrowed and proprietary capital. He added that "some of us folks" on the committee-of-six felt as though there might have been a "better administration" of the Interstate Commerce Act's provisions relating to railroad finance. Thus the recommendation that such functions be transferred to the proposed Transport Board. Mr. Harrison had little to say about the rate-making rule, because he claimed he didn't know enough about it. He did, however, favor the rule proposed by the committee-of-six; and if the present rule is to be continued he would like to see the elimination of the phrase about the effect of rates on the movement of traffic. The R. L. E. A. chairman concluded with a brief discussion of railroad wages in which connection he supplied data bearing on questions asked by committee members. He gave

the average hourly wage rate in the railroad industry as 73 cents, adding that the industry ranked 21st among all American industries in that connection.

### Judge Fletcher Explains Bill

Launching his detailed discussion of S. 2009, Judge Fletcher first explained that with respect to air transport the bill does no more than give the I. C. C. power to regulate rates, leaving promotional and developmental activities with the Civil Aeronautics Authority. As he went on to point out that the bill undertakes to bring about equality of regulation, the A. A. R. general counsel took occasion to emphasize the necessity from the railroad viewpoint of equality in taxes and subsidies as well. There are some things in the Wheeler-Truman bill which Judge Fletcher doesn't like at all, and some things omitted which he thinks it would be helpful to include; but on the whole he believes that the bill's merits exceed its defects.

The witness spent some time on the declaration of policy which he called a "serious matter." He listed the eight standards set up in the declaration and maintained that "they are sound." From this discussion of section 1, Judge Fletcher went on with a section by section consideration of the measure. In commenting on section 2 which deals with the scope of the act he cited the provision which would permit the I. C. C. to exempt from regulation water carriers, such as the bulk carriers on the Great Lakes, which do not compete with other transport agencies. Section 3, dealing with definitions, makes it plain that railroad pick-up and delivery services and terminal marine services should be regarded as railroad operations, rather than motor and water operations, respectively.

Section 4 requires that rates be just and reasonable; it is no longer the long-and-short-haul clause, Judge Fletcher pointed out, adding that "we get that much relief anyway—we'll talk about section 50 hereafter." Continuing, the witness was "sorry to say" that the bill did an "important thing" not covered in the committee-of-six bill introduced in the House as H. R. 4862—it retains the Panama Canal Act with the prohibition against railroad ownership of water lines. Judge Fletcher doesn't think there is going to be much co-ordination unless one transport agency is permitted to use other types of transport.

Section 5 of the bill is the old section 2; section 6 is old section 3; while section 7 dealing with tariffs was taken largely from the Motor Carrier Act's section 217. Section 8, covering the filing of contracts by contract carriers, is stronger than the present provision; while section 9 is what Judge Fletcher called the "famous section about free transportation" with everything retained, even the provision about the "seeing-eye dog." Also, there is an added provision permitting the railroads to give free transportation to executive officers and counsel of employee organizations. The A. A. R. general counsel explained in that connection that some of the labor lawyers may benefit, but he thinks most of the labor executives now get free transportation as former railroad employees.

### Opposes Compulsory Pooling

Other changes noted by Judge Fletcher at this point are provisions to permit the making of contract rates with the government for the transportation of persons, and to give the I. C. C. power to define territories where drought-relief rates will apply, thus giving the railroads protection from reparation charges in that connection. Section 10, dealing with car service, contains a new provision which makes it illegal to bribe a switchman in order to obtain preference in the distribution of cars. The pooling provisions in this section remain unchanged, except for the broadening to include motor and water carriers.

In the latter connection Judge Fletcher made a brief argument against any change which might be suggested by later witnesses to give the I. C. C. power to require pooling. He thinks the commission's present latitude to arrange divisions of rates is all that is necessary along that line. Senator Reed suggested that the commission should have power to require co-ordinations and pooling, and contended that railroad managers are prone to approach a potential co-ordination from the standpoint of holding any advantage their own roads enjoy. Judge Fletcher's comment was that he was not prepared to think that this country is ready for "such an exhibition of altruism and self-sacrifice" as would be involved in the proposition outlined by the Kansan.

There was considerable discussion of the bill's commodities clause with reference to whether or not it would have the effect of making that prohibition a two-way proposition, i.e., prohibit a carrier from transporting commodities owned by its parent company. Such a prohibition would affect railroads owned by industries, and pipe lines and some water carriers as well. It is understood that it was the intent of the bill's drafters to make the clause apply to such cases as the Elgin, Joliet & Eastern, a United States Steel Corporation affiliate, which the U. S. Supreme Court held was not subject to the present commodities clause. Chairman Wheeler said he was "very doubtful" whether anything "so drastic" should be included in the bill; while Judge Fletcher also expressed doubt that such a change should be included.

There was also considerable discussion among committee members when Judge Fletcher came to those sections covering claims for loss and damage and reparations wherein the time limits for filing claims and suits were shortened—not to the extent asked by the committee-of-six, but sufficiently to satisfy Mr. Gray, as noted above. Senator Reed suggested that the committee shouldn't hastily make such changes which affect shippers. He is sure the shippers will want to be heard on such matters; and he withdrew a previous offer to support the bill on the Senate floor unless there is opportunity to have all changes "very clearly" indicated and time to consider them. He wants to know exactly what the bill does in the way of "codifying." Later in this connection Chairman Wheeler said there would be no legislation at the present session if time were taken to prepare a detailed memorandum, setting up the present Interstate Commerce Act and S. 2009 in parallel columns. He offered to have the "I. C. C. expert" who drafted the bill go over it with Senator Reed.

### I. C. C. Departmentalizing Prohibited

Meanwhile Judge Fletcher had pointed out that section 19 extends the I. C. C. powers over accounting matters to the records of "controlling persons" of carriers; and Chairman Wheeler explained that this was done because his rail finance investigation turned up criticisms of the I. C. C. with respect to situations which the regulatory body had no power to probe. The A. A. R. general counsel went on to explain that section 21, covering remedies for damages, was taken from the Interstate Commerce Act and the Elkins Act. He explained in the latter connection that it "seemed wise" to put the provisions of the Elkins Act in the codified act, and

this was done. Section 22 is the reparations section while section 23 deals with the I. C. C. and Joint Boards. It contains what Judge Fletcher called the "very important" proviso to insure that any division of I. C. C. work will be along "function" lines, i. e., the committee-of-six idea that the division dealing with any phase of regulation should deal with that phase for all forms of transport. This proviso, Judge Fletcher indicated, would mean the end of the commission's Motor Carrier Division.

Among other new provisions discussed by Judge Fletcher was that permitting the I. C. C. to pay the expenses of state commissioners and joint boards co-operating with the federal agency in hearings, and that authorizing transport employees to intervene in I. C. C. proceedings. The latter, Judge Fletcher said, merely puts in statutory form the present practice of the commission.

There is no change in the present law with respect to joint rail-motor rates, and the A. A. R. general counsel would not want to give the I. C. C. power to require the establishment of such rates; although he is wondering if the regulatory body should not have power to prohibit such rates in cases where the effect is to permit a railroad or motor carrier to invade the territory of another railroad or motor carrier. He added that some "very troublesome" situations have arisen. As noted in the *Railway Age* of March 25, the Department of Justice has received a Sherman Anti-Trust Act complaint, based on an A. A. R. resolution in that connection.

The committee-of-six recommendations with respect to intra-state rates proposed that such rates be made an issue at the outset of general rate hearings so that the I. C. C. determination with respect to them could be reached in the same decision which dealt with the inter-state rates; and that the commission be given power to suspend intra-state rate reductions ordered by state commissions. The Wheeler-Truman bill's section 29 does not embody these recommendations, which were designed to eliminate delays and revenue losses incident to the failure of state commissions to follow the I. C. C.'s lead; and Judge Fletcher's advocacy of the committee-of-six idea precipitated an interchange of views between himself and committee members which consumed much of April 4's afternoon session. It was the A. A. R. general counsel's contention that the change suggested by the committee-of-six was "merely procedural."

Resuming his discussion of the bill on April 5, Judge Fletcher explained that the effect of making this section 29 apply to all forms of transport was to give the I. C. C. power it did not get in the Motor Carrier Act to review the action of state commissions in connection with intra-state motor rates. All the change does in his opinion is to supply the machinery for such review, since he believes the commission could now make the review under the doctrine of the Shreveport case.

### The Rate-Making Rule

Next Judge Fletcher came to section 30 which preserves the present rate-making rule with the phrase about the "effect of rates on the movement of traffic" to which railroads object. There was an extended exchange of views on this matter with Chairman Wheeler contending that the commission could do under the declaration of policy, which the railroads approved, what the railroads want to prevent by changing the rate-making rule. With such debate out of the way Judge Fletcher said that after all the shippers were most interested in the rate-making rule; and the committee-of-six has been "trying very hard" to agree with the National Industrial Traffic League on language for a new rule. There is an understanding with influential members of the N. I. T. League that such negotiations will continue to see if some agreement may yet be reached. Chairman Wheeler said that a rule written under such circumstances would be "very helpful" to the committee. In concluding his discussion of the matter Judge Fletcher said he'd rather have no rate-making rule, as was the case prior to 1920, than the present one.

At this point the A. A. R. general counsel referred to Senator Reed's complaint (noted in the foregoing) of the difficulty of finding out just what the codification does to the laws being codified. He went on to say that he is having a memorandum prepared to show in convenient form all changes which the bill would make in existing law. Resuming his explanation the witness passed quickly over the sections relating to such matters as safety, valuation, and I. C. C. control of security issues. He pointed out in the latter connection that the regulation of financial matters is one of the things which the committee-of-six wants to transfer from the I. C. C. to its proposed Transportation Board; but he agreed with Chairman Wheeler's statement that some railroad executives do not agree with that committee-of-six recommendation, adding, however, that dissenting railway officers are "more emphatic" in their opposition to a special reorganization court.

The next few sections of the bill relate to certificates of convenience and necessity, brokerage licenses, etc., and Judge Fletcher had but brief comment on each until he came to section 49, which deals with unification of carriers. There he discussed the new broad standards which would determine the I. C. C. approval of consolidations following repeal of the provision relating to the consolidation plan. An "important" new provision, the witness said, was that giving the I. C. C. authority to enlarge the corporate power of a carrier where such carrier under its state charter lacks power to do things which the I. C. C. finds in the public interest. Judge Fletcher contended that the courts have held that Congress has the power to do this.

### Calls Long-and-Short Haul Clause the Worst Law Ever Passed

Section 50, as stated above, is the long-and-short haul clause which has been extended to all forms of transport. Senator Hill, Democrat of Alabama, asked if any change was proposed; and Chairman Wheeler replied: "Not so you'd notice it." Judge Fletcher passed on with the comment that in his opinion "there never was a worse law than the long-and-short-haul clause." He thought he could best explain section 51, dealing with penalties, by filing a memorandum with the committee. In general, he said, the bill's drafters undertook to put in one place all penalty provisions now scattered throughout the Interstate Commerce Act; and Chairman Wheeler explained that the penalties have been reduced, because of the fact that the general section applies to other transport agencies as well as railroads.

Section 52 is the one which calls for the I. C. C. investigations of the relative economy and fitness of the various transport agencies, and of government aids to transport. Judge Fletcher said he approves this provision "so far as it goes," but he prefers to have the studies made by an independent body. Chairman Wheeler said that he doesn't care whether the investigations are made by the I. C. C. or some other body—it's up to the committee. He does not think there is any legislation needed on the matter because the President could appoint a board of inquiry. He added that a body of men who

took on the job as a patriotic duty would inspire more public confidence than some group which would get salaries and subsequently comprise a permanent board.

Judge Fletcher concluded by reference to the committee-of-six bill's (H. R. 4862) provision for a review of proposed waterway projects by some board which would consider the public need for the additional transport facilities. He cited the pending Beaver-Mahoning project as a current demonstration of the need for such an impartial review of reports of army engineers.

### American Trucking Associations Object

J. V. Lawrence, general manager of American Trucking Associations, Inc., followed Judge Fletcher with a section by section discussion of provisions to which that organization objected. First, however, the witness protested against the codification which weaves the Motor Carrier Act into the general bill. This protest did not "carry much weight" with Chairman Wheeler, so Mr. Lawrence went on to object to the provision requiring that any I. C. C. divisions be set up along functional lines. The motor carrier industry, Mr. Lawrence said, feels that the present Motor Carrier Division has done "a splendid job," and it further believes that the present administrative set up is "fair to all." The witness later told Senator Stewart that his principal objection of "functionalizing" was the initial disruptions it might cause.

Mr. Lawrence next objected to the failure to include provisions for the regulation of forwarders, and he submitted a proposed amendment in that connection. The A. T. A., he went on, is also opposed to provisions which define railroad pick-up and delivery operations as rail services; it wants such services regulated as motor carrier operations. The witness continued to express the fear of the trucking industry over the possible ramifications of its being included under such provisions as those relating to pooling, the commodities clause, the shippers' right to route traffic and reparations. Chairman Wheeler tossed many such objections aside, suggesting at one point that the witness was seeking to do a bit of "shadow boxing."

### Wants I. C. C. to Fix Vehicle Weights and Sizes

Mr. Lawrence contended that the provisions relating to hours of service would give the railroads a better break than the motor carriers, and Chairman Wheeler agreed to look into the matter, although he observed that "anyone" will concede that "labor is better protected on railroads today than on trucks and buses." With reference to the provision, taken from the Motor Carrier Act, which directs the I. C. C. to investigate the need for federal regulation of motor vehicle sizes and weights, Mr. Lawrence suggested an amendment to the effect that if the I. C. C. finds a need for federal regulation in that field it be directed to prescribe "reasonable" restrictions, subject to such "reasonable exceptions" as may be necessary to enable the states to protect their highways and bridges.

To the section which deals with acquisitions of one carrier by another, Mr. Lawrence suggested an amendment to afford "greater protection" against railroad purchases of motor carriers. He thinks such "protection" is necessary in view of the rapidity with which railroads are buying up highway operations. Insofar as co-ordination is concerned, Mr. Lawrence went on, the motor industry is ready and willing to enter joint rate arrangements with the railroads; but it has been "sort of stymied" by the refusal of roads to co-operate in that connection.

Mr. Lawrence was followed in turn by J. D. Shatford, chairman of the Railroad Owners' Association, and John E. Benton, general solicitor of the National Association of Railroad and Utilities Commissioners. The former presented his organization's railroad legislative program as he did before the House committee; while Mr. Benton objected emphatically to giving the I. C. C. additional authority over the intra-state rates of motor carriers.

# House Sub-Committee To Consider Rail Bills

WASHINGTON, D. C.

THE House committee on interstate and foreign commerce at an executive session on Wednesday afternoon authorized the appointment of a subcommittee to deal with transportation legislation on which 10 weeks of hearings were completed on March 30 with a presentation from Jesse H. Jones, chairman of the Reconstruction Finance Corporation. Names of the subcommittee members were expected to be announced before the end of the week by Chairman Lea who at the conclusion of the hearings last week expressed the hope that the committee would be able to use the information obtained "for the advantage of the country."

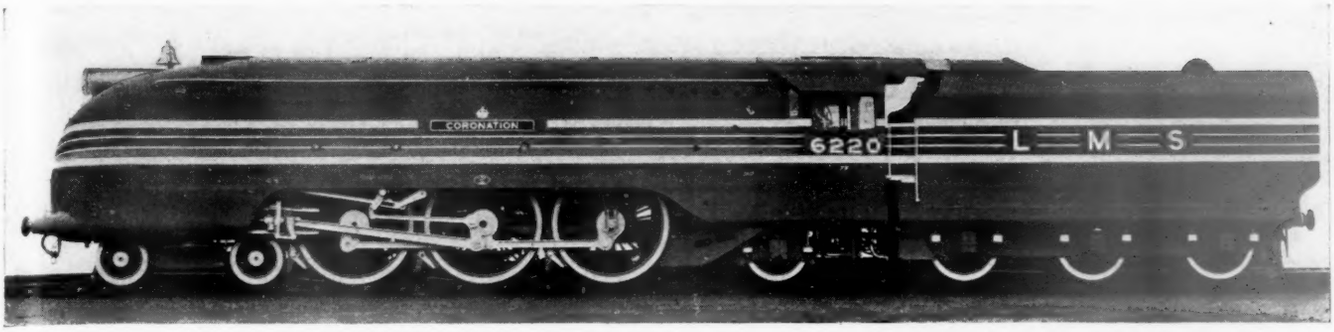
### Testimony of R. F. C. Chairman Jones

R. F. C. Chairman Jones preferred to make his presentation by answering questions of committee members; he had not "kept track very much" of the hearings and he had not read the bill, but he did have a "breakdown" of the proposals involving the R. F. C. Responding first to Chairman Lea's questions, Mr. Jones said that R. F. C. experience with railroad loans, "everything considered," has been "quite satisfactory." He expects that there will be "no serious loss" in the aggregate, although a current appraisal would show impairment of the security in some cases. With reference to considerations which have governed the granting of loans to railroads, the R. F. C. chairman explained how in the beginning such aid was extended to avoid receiverships; but more recently equipment and "work" loans have predominated. The lending agency, Mr. Jones added, has been trying to make as many work loans as possible, to provide employment in the railroad and railroad equipment industries.

The rates on R. F. C. loans, other than work loans, he went on, have been written at 5 per cent; but only 4 per cent is charged so long as the borrower pays promptly—the 5 per cent contract rate accrues when the loan is in default. Work and equipment loan rates "have averaged about 3 per cent." In Mr. Jones' opinion, the R. F. C. loans have benefited the railroads, even though some thus aided subsequently went into reorganization proceedings, and hindsight indicates that it might have been just as well not to have made some of the loans.

On the question of R. F. C.'s need for additional authority, the witness told Chairman Lea that a "slight modification" of the section dealing with Interstate Commerce Commission certifications would be "very helpful." He referred to the proposed elimination of the requirement that in connection with all but equipment loans the I. C. C. must find that the prospective borrower is not

(*Continued on page 621*)




**The "Coronation," Now in the United States for the New York World's Fair, Is One of a Class of Ten Locomotives for the "Coronation Scot" Service**

# Pacific Type Locomotive Hauls "Coronation Scot"

## London, Midland & Scottish streamline locomotive has four single-expansion cylinders—Tractive force is 40,000 lb.—Combined heating surface, 3,663 sq. ft.

THE "Coronation Scot" passenger train which the British London, Midland & Scottish Railway is exhibiting at the New York World's Fair, April 30 to October 1, and which is now on an exhibition tour of the eastern and central states, is hauled by a 4-6-2 type streamline steam locomotive.* This locomotive is the first of a class of ten, all of which are streamline, which were turned out of the railway company's Crewe Works during 1937 and 1938. The form of streamlining was decided upon after experiments with models in the L. M. S. research department's wind tunnel at Derby. The tests were carried out to represent both head winds and winds crossing the track at various angles.

In one of the tables is a comparison of the principal data and dimensions for the L. M. S. locomotive and that of several recently built American passenger locomotives. The American locomotives selected for the comparison are of the 4-6-4 type, as this represents the latest steam locomotive development for high-speed service analogous to that of the Coronation Scot. In studying these comparisons it must be kept in mind that the British locomotive is built within a maximum height limited to 13 ft. 2⅝ in. and an overall clearance width of 8 ft. 10⅝ in. This compares with the heights and widths, respectively, of the three American locomotives as follows: New York Central, 15 ft. 1 in. and 10 ft. 5 in.; Chicago & North Western, 15 ft. 11 21/32 in. and 10 ft. 10¼ in.; Chicago, Milwaukee, St. Paul & Pacific, 15 ft. 6 in. and 10 ft. 6 in. These much more severe limitations in clearance dimensions, no doubt, have some relation to the adherence on the part of the British railways to passenger-car construction of a decidedly lighter type than that which has long been customary on American railroads.

The boiler shell is constructed of nickel steel, with an inner firebox of copper. All of the firebox staybolts are of Monel metal, ¾ in. and ⅝ in. in diameter, depending on their location. The large flues are screwed into the firebox tube plate before being expanded. The firebox is extended into the barrel to form a combustion chamber.

The grate has an area of 50 sq. ft. and is built up in three sections. The rear section is practically level, while the other two sections slope downwards towards the tube plate. The rear and middle sections are fitted with cast-iron firebars, and the front section consists of two cast-iron frames, one on each side of the center line of the grate, in each of which is fitted a cast-iron drop grate. Both drop grates are operated simultaneously from a lever in the cab.

An exhaust-steam injector is fitted on the fireman's side, and on the left hand or driver's side is a live-steam injector. Both are of the non-lifting type. Both injectors deliver to the boiler through top check valves which discharge into trays within the steam space wherein any gases contained in the water may become disengaged, the deaerated water being finally discharged through pipes below the water level.

There are 40 superheater flues, each containing triple elements of 1-in. outside diameter. The throttle is of the grid type and is located in the dome. Baffle plates are provided beneath the dome to prevent water from lifting and entering the steam pipe.

Particular care has been taken in designing the smokebox to arrange the steam and exhaust pipes so that the smokebox bottom is free as far as possible from all obstructions to facilitate the removal of ashes. The boiler has a sand gun of the railway company's standard type which enables tubes to be cleaned during a run.

### Frames and Cylinders

The main frames are 1⅛-in. plate and are of high-tensile steel. At each side at the rear end two separate

* For a description of the coaches in this train see the *Railway Age* for April 1, page 553.

frame plates are spliced to the main frames and carried through to the rear buffer beam. The outer frames are spread outwards, and the inner frames drawn inward to take the side bearers for the two-wheel trailing truck.

There are two sets of Walschaert valve motion outside the frames which drive the outside piston valves directly and the inside piston valves by means of rocking levers. The whole arrangement is specially designed with a view to allowing both sets of valves to be removed for examination with minimum trouble. The valve motion is fitted with needle bearings except at the back ends of the eccentric rods which have Skefko self-aligning ball bearings. The lubrication of the needle bearings is by means of a grease gun.

**A Comparison of the British Coronation Scot Locomotive with American Locomotives**

| | L. M. S. 4-6-2 type | N. Y. C. 4-6-4 type | C. & N. W. 4-6-4 type | C. M. St. P. & P. 4-6-4 type |
|---|---|---|---|---|
| Tractive force, lb. | 40,000 | 43,440 | 55,000 | 50,300 |
| Tractive force, with booster, lb. | ..... | 55,440 | ..... | ..... |
| Weight on drivers, lb. | 150,304 | 196,000 | 216,000 | 216,000 |
| Weight of engine, lb. | 242,144 | 360,000 | 412,000 | 415,000 |
| Diameter of drivers, in. | 81 | 79 | 84 | 84 |
| Cylinder centers, in. | 84 | 89 | 92½ | 91 |
| Cylinders, number and diameter, in. | 4-16½ x 28 | 2-22½ x 29 | 2-25 x 29 | 2-23½ x 30 |
| Boiler pressure, lb. | 250 | 275 | 300 | 300 |
| Grate area, sq. ft. | 50 | 82 | 90.7 | 96.5 |
| Evaporative heating surface, sq. ft. | 2,807.5 | 4,187 | 3,979 | 4,166 |
| Superheating surface, sq. ft. | 856 | 1,745 | 1,884 | 1,695 |

The exhaust passages in the cylinders have been carefully designed to give free exit to the steam without providing an excessive volume which would act as a reservoir. The exhausts from the inside cylinders and from the two outside cylinders are combined in the saddle casting so that the blast pipe is a simple straight pipe.

Pistons are of the box type screwed on to the piston rod and have three narrow rings.

The valves and cylinders are lubricated mechanically. The oil to the piston-valve liners is atomized by being mixed with a jet of saturated steam which is taken from an independent supply on the boiler so that atomized oil is supplied continuously while the engine is running, either with the throttle open or shut. In addition to the feeds to each of the piston-valve liners there are feeds to each piston packing and two feeds to each cylinder barrel, one at the top and one at the bottom.

The crossheads are of the two-bar type and are steel castings with bronze shoes having white-metal bearing surfaces.

## Running Gear

The tires are secured by the Gibson-ring type of fastening, and the wheel rims are of triangular section. The balance weights are such that 50 per cent of the reciprocating weights are balanced, equally divided among the coupled wheels. The whole of the revolving parts are balanced in each wheel. The driving axles have journals 10 in. in diameter by 10 in. long. The main and rear axles are hollow bored 4½ in. in diameter. The front axle is cranked to receive the main rods of the inside cylinders. The driving boxes are steel castings with pressed-in brasses completely lined with white metal on the bearing surface. There are no oil grooves in the crown of the box to disturb the continuity of the oil film, but the oil from the mechanical lubricator is introduced through a row of holes on the horizontal center line of the axle. In addition to mechanical lubrication, each driving-box cellar contains an oil pad so arranged that it can easily be withdrawn for examination. There is also a dust shield on the inside face of each of the main and rear driving boxes.

The supply of oil from the mechanical lubricator is taken through a spring-loaded back-pressure valve fixed at the top of the driving box. The function of this valve is to keep the oil pipes full of oil while the engine is standing, so that delivery to the journal will commence immediately after the engine moves. The driving boxes are fitted with bronze hub liners.

Side bolsters transmit the load from the main frames to the engine truck. The bearing springs are of the inverted laminated type with screw adjustment. The trailer truck is of the Bissel type and the radius arm is pivoted to a frame cross member immediately in front of the firebox throat sheet. As in the case of the leading truck, the weight from the main frames is taken through side bolsters.

All the laminated bearing springs for the engine and tender are made of silico-manganese steel, the plates being of a ribbed section with cotter-type locking in the spring bands. The spring links are screwed to permit of adjustment. Rubber damper springs are also placed between the spring-link heads and the frame brackets for the driving wheels.

The locomotive has steam brakes, and double brake shoes are arranged at the front of each of the coupled wheels. The brake gear is compensated to give equal pressure on each brake shoe. The driver's brake valve controls proportionately the application of the steam brake on the engine and the vacuum brake on the train.

Admission of steam to the large and small vacuum-brake ejectors is controlled by separate steam valves.

## Locomotive Cab

Double windows are fitted on both sides of the cab, the rear one of which is arranged to slide. On both sides on the outside of the cab and between the windows, a small glass screen can be turned into position so that when the enginemen are looking outside the cab it acts as a draft preventer. A hinged window giving ample

**General Dimensions and Weights of the London, Midland & Scottish 4-6-2 Type Locomotive**

| | |
|---|---|
| Railroad | London, Midland & Scottish |
| Builder | London, Midland & Scottish |
| Date built | 1938 |
| Service | Passenger |
| Rated tractive force, engine, 85 per cent, lb. | 40,000 |
| Weights in working order, lb.: | |
| On drivers | 150,304 |
| On front truck | 50,400 |
| On trailing truck | 41,440 |
| Total engine | 242,144 |
| Tender | 126,224 |
| Wheel bases, ft. and in.: | |
| Driving | 14–6 |
| Engine, total | 37–0 |
| Engine and tender, total | 62–11 |
| Driving wheels, diameter outside tires, in. | 81 |
| Cylinders, number, diameter and stroke, in. | 4—16½ by 28 |
| Valve gear, type | Walschaert |
| Valves, piston type, size, in. | 9 |
| Maximum travel, in. | 7 1/32 |
| Boiler: | |
| Steam pressure, lb. | 250 |
| Diameter, first ring, outside, in. | 68 5/8 |
| Diameter, largest outside, in. | 77½ |
| Tubes, number and diameter, in. | 129—2 3/4 |
| Flues, number and diameter, in. | 40—5 1/8 |
| Length over tube sheets, ft.-in. | 19—3 |
| Fuel | Soft coal |
| Grate area, sq. ft. | 50 |
| Heating surfaces, sq. ft.: | |
| Firebox, total | 230.5 |
| Tubes and flues | 2,577 |
| Evaporative, total | 2,807.5 |
| Superheating | 856 |
| Combined evap. and superheat | 3,663.5 |
| Tender: | |
| Style | 6-wheel |
| Water capacity, Imp. gal. | 4,000 |
| Fuel capacity, tons (long) | 10 |

area for lookout is located on each side in the front wall of the cab. Tip-up seats are placed on both sides of the cab and there are low gangway doors between the engine cab and the sides of the tender. A rubber connecting sheet closes the space between the rear of the cab roof and the arch over the front of the tender.

Steam sanding is provided in front of the leading and middle coupled wheels for running in a forward direction, and behind the middle coupled wheels for running backwards.

Oil-gun lubrication is utilized on certain parts, such as the brake gear, spring gear, reversing gear in the cab, etc.

The locomotive has been equipped with headlights, side flood-lights, bell, spark arrester and automatic couplers so that it may be operated in the United States.

### The Tender

The tender carries 10 long tons of coal and 4,000 imperial gallons of water. There is a steam coal pusher at the back of the tender coal space which can be used to push the coal forward to the fireman's shovel towards the end of the run and thereby save considerable manual effort. The tender carries a water scoop in front of which is a deflector to reduce wastage of water.

The tender is fitted with compensated brake gear to equalize the pressure on the brake shoes. Oil-gun lubrication is used for such items as the hand brake and water pick-up handles.

A door is arranged to give access to the coal space from the footplate, and on the fireman's side there is a long receptacle to carry the fire irons.

## House Sub-Committee To Consider Rail Bills

(*Continued from page 618*)

in need of financial reorganization. Mr. Jones would like to have a certificate from the I. C. C. concurring in loans and in the adequacy of the security offered; but he doesn't think the regulatory body should be expected to predict whether any railroad can earn its fixed charges.

Questions from Representative Mapes, Republican of Michigan, drew Mr. Jones into a discussion of another amendment favored by the R. F. C., which aroused considerable controversy when it was before Congress in the closing days of the last session. It is the proposal giving R. F. C. authority to dispose of collateral securing loans made to roads which subsequently enter reorganization proceedings with the usual injunction against collateral sales by creditors. As explained by C. M. Clay, assistant general counsel of R. F. C., the lending agency's proposal is that it be placed in the same position as holders of equipment trust certificates, which are now exempt from such blanket injunctions. Mr. Clay added that R. F. C. has been "frozen in" in a number of cases for four or five years. Later Mr. Jones told Representative Wadsworth, Republican of New York, that the issue was not "paramount" because the government can wait for its money even though it be "inconvenient." He did, however, offer a draft of the desired amendment, along with another of the above-mentioned proposal to revise the I. C. C. certification provisions.

Mr. Jones told Representative Bulwinkle, Democrat of North Carolina, that he was opposed to the committee-of-six proposal for two per cent equipment loans; neither does he favor the Lea bill's $300,000,000 limit for the equipment loans which it would authorize. In the latter connection he suggested that there is no reason for putting a fixed amount in the law; and furthermore, Mr. Jones added, if Congress says R. F. C. can make $300,000,000 in equipment loans and the lending agency doesn't do it "we'll catch a lot of hell." Discussing the R. F. C.'s general loan policies with Representative Halleck, Republican of Indiana, Mr. Jones said that he thinks the government agency should make its loans on a business basis, but "on the liberal side."

One suggestion from Mr. Jones referred to the idea of making loans to permit railroads to purchase their own securities at a discount. He does not think such a plan would take a lot of money, and he believes that the government can best help the railroads by aiding in the resetting of their capital at lower rates of interest. Suggesting that the questioner was "smoking me out" Mr. Jones in response to an inquiry from Representative Cole, Democrat of Maryland, went beyond proposals dealing with the R. F. C. to discuss more general matters. In this connection he said that with all due respect to management and labor, he doesn't know who on the committee-of-six represented the "fellow who owns the railroads." He does not understand that the security holder was "in the councils" of the six. Here again Mr. Jones said he didn't like the two-per-cent equipment loan proposal, because he doesn't like the idea of lending money at two per cent and not having any of it come back for five years. "If money's worth anything," he added, "it ought to be paid for—if not let's go to printing it."

Continuing his response to Mr. Cole's inquiry the witness thought there should be some change in the reorganization law, and a "little better regulation about competition." In the latter connection he is "rather inclined" to the view that the I. C. C. or "somebody" ought to fix rates for all carriers. Mr. Jones later said that everyone took his "liquidation" in "this recent unpleasantness;" and he sees no reason why railroad bondholders should be treated any differently. Representative Boren, Democrat of Oklahoma, was interested in the recent abandonment of the Fort Smith & Western; and while the witness did not discuss the case specifically he did observe that where a territory refuses to support a railroad the carrier has to go out of business unless it gets a subsidy. He added that the country has "substantially too many" miles of railroad—more than it can support in view of the development of other agencies of transportation.

* * *

### Non-Shippers Who Favor High Rates, and Why

Some of the automobile manufacturers are opposing rate reductions by the railroads for the transportation of automobiles. The reason they are opposing such reductions is that they are not shipping by railroad, but they are charging their customers at destination the f.o.b. prices, *plus the railroad freight rate.* By using "truckaways" and "driveaways" they are getting their cars to destination at an outlay materially lower than the railroad freight rate. So the railroad freight rate that they tack on to the selling price of their product just means that much extra profit for them to stick into their jeans; and the higher the railroad rate is, the more they can soak the consumer.

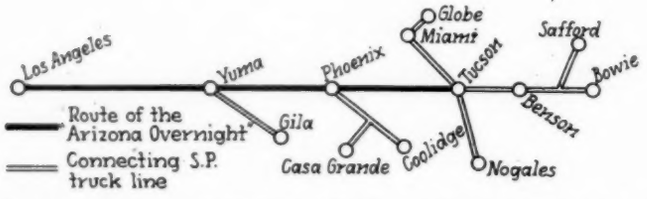
The question which arises is: Are railroad freight rates being regulated to serve the interests of the ultimate consumer in low cost transportation, or are they being used primarily to put extra profits into the pockets of overstuffed corporations?

# Arizona Overnight

FOR the purpose of providing southwestern Arizona with overnight l. c. l. freight service from Los Angeles and saving 24 hr. on merchandise to all parts of the state on its lines, the Southern Pacific inaugurated the "Arizona Overnight" on February 1. This train operates from Los Angeles to Tucson, with co-ordinated truck service to many points, and, in conjunction with the Overnight operated from San Francisco to Los Angeles, also gives 24-hr. faster service from the San Francisco bay area to various points in Arizona.

Leaving Los Angeles at the close of the business day, the new train arrives at Yuma, Ariz., 252 miles from Los Angeles, at 2:35 a. m., Pacific time; at Phoenix, 426 miles, at 7:35 a. m., Mountain time; and at Tucson, 547 miles, at 11:15 a. m., Mountain time.

From these break-bulk points, the trucking facilities




**Routes of the New Co-Ordinated Train and Truck Service on the Southern Pacific**

of the Peoples Freight Lines, recently acquired by the Southern Pacific, handle the merchandise by highway to many important Arizona cities, on routes from 60 to 145 miles in length.

From Yuma, as shown on the accompanying map, the trucks serve cities along the highway to Gila. From Phoenix, two routes extend to Casa Grande and Coolidge. From Tucson, several routes extend north, south and east to such cities as Miami, Globe, Nogales, Benson, Bowie and Safford. Rail connections at Tucson


**Fast Merchandise Train with Truck Connections Saves Much Time**

also provide for 24 hr. faster service to Bisbee, Douglas and intermediate points.

As with other similar fast runs on the Southern Pacific, the waybills for the shipments are sent in advance by teletype, so that all paper work may be completed before the arrival of the train and the freight handlers are ready to go to work immediately in making the transfer from car to truck.

# Communication . . .

## Defends Commission's Study of Deferred Maintenance

WASHINGTON, D. C.

TO THE EDITOR:

In the editorial on undermaintenance in your issue of March 25, 1939, you suggest that in the study on this subject recently released from this Bureau, the basis with which the present condition of the properties should have been compared is that which prevailed between 1925-1929. That basis would have been most misleading. You will find few practical railway men who will sustain you in your contention. The replies quoted in the report were all made by practical railway officers. The return for one of the largest systems of the country, quoted on page 14 of the report, says, "Current expenses for maintenance compared with expenditures for past years are no criterion for determining whether any deferred maintenance has occurred, because of larger and improved machines installed in recent years, as well as improved methods now used for doing maintenance work which were not previously available."

The recapture provisions in the law at that time tended to produce overmaintenance. To put the railways today in the same condition as they were in the 1925-1929 period, the volume of traffic of that period not being in early prospect now, would be wasteful expenditure.

You refer in particular to the neglect in the painting of buildings. The report shows in detail (Appendix IV) the man-hours of painters applied in each year 1929-1937. There has indeed been a reduction. But, as illustrated on page 13, it was asserted by practical railway men who were questioned on this point, that sufficient painting is being done to protect the properties. Much painting was formerly done for the sake of appearance, and although that is justifiable, the fact that it is omitted for a time does not necessarily create deferred maintenance.

A lowering of standards, combined with more thrift and improved methods, explains how it has been possible for the railways to reduce maintenance expenses radically and still leave the properties in good condition for service.

The report does not say unreservedly that the undermaintenance is only $283,000,000. It indicates that it may be as much as $444,000,000 (page 8). But this does not have to be made up at any one time.

The replies of the railway presidents to the questionnaire must be taken as demonstrating that the problem of making up deferred maintenance is not worrying them. Such expressions in the returns as "in good shape", "more equipment than actually needed", "adequately maintained", and "never in better condition", did not come from a few "favored roads". They evidently feel confident that they can take care of any probable expansion of traffic. It is to be hoped that the report will serve to make clear that it is idle to discuss the amount of maintenance needed without having in mind a definite volume of traffic to be handled. The report took the 1937 volume as a standard and the reasonableness of this assumption for this purpose has not been questioned.

M. O. LORENZ.
Director, Bureau of Statistics, Interstate Commerce Commission.

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EQUIPMENT DEPRECIATION RATES for 12 railroads including the Duluth, Missabe & Iron Range are prescribed by the Interstate Commerce Commission in a new series of sub-orders and modifications of previous sub-orders in No. 15,100, Depreciation Charges of Steam Railroad Companies. The composite percentages for all equipment, which are not prescribed rates, range from the D. M. & I. R.'s 2.64 per cent to the Washington, Brandywine & Point Lookout's 16.5 per cent.

The sub-order relating to the D. M. & I. R. is a modification of a previous sub-order, and it prescribes rates as follows: Steam locomotives, 2.8 per cent; freight-train cars, 2.6 per cent; passenger-train cars, 2.45 per cent; floating equipment, 1.33 per cent; work equipment, 2.94 per cent; miscellaneous equipment, 11.24 per cent.

# NEWS

## Protests Cinema Slap at Railroads

### Makes gangster a hero while it distorts history to show railroads as villains

Labeling a motion picture film which portrays the notorious bandit and train robber, Jesse James, as an innocent victim of unscrupulous railroad officers as pure fiction, President J. J. Pelley of the Association of American Railroads has sent a letter to Darryl Zanuck, vice-president, Twentieth Century-Fox Film Corporation, with a copy to "Movie Czar" Will Hays of the Motion Picture Producers and Distributors Association, protesting that the film "Jesse James" falsely represents the American railroad industry.

Released several months ago, the picture, which was advertised as being in conformity with historical facts based on research, in presenting the story of the James brothers makes it appear that the bandits were blameless farmer lads who were driven to their life of train-robbery solely to revenge the murder of their mother at the hands of an unscrupulous land agent of a railroad being built through pioneer Missouri. Furthermore, the president of the road is placed in the light of a much-hissed villain,—greedy, shrewd and untrustworthy,—who hounds the James boys to a permanently criminal life.

Actual research in the Library of Congress, asserts Mr. Pelley, shows that every responsible authority on the life of Jesse James agrees that his career of violence was due to resentment at mistreatment by the Missouri militia; that his first "jobs" were not vengeful train-robberies but the robbery of banks; that he had no secret agreement with any railroad president as to amnesty if he surrendered, which pact, according to the film, was repudiated by the railroad executive. Point after point in the film is thus demonstrated to have been false either directly or by implication, the letter declares.

It further contains an explanation for the particular concern of the railroad industry over the possible public effects of the film's showing, pointing out that "while it may seem illogical that representations of events of more than half a century ago should have any bearing on the railroad business today, it is nevertheless a fact that the residue of emotional reaction from such allegations is a serious obstacle to popular understanding of the facts about railroad transportation even today." The situation is not unlike that of the moving picture field, wherein some of the public relations problems with the public today "derive from popular impressions of the industry as it was supposed to have been a few years back."

### I. C. C. Would Open Contract-Truck Contracts to Public Inspection

All contract carriers subject to the Motor Carrier Act have been called upon by the Interstate Commerce Commission to show cause at an oral argument in Washington, D. C., on May 3 as to why contracts filed with the commission "should not be open to public inspection" and why the contract truckers "should not be required, when it appears necessary and desirable in proceedings before this commission, to furnish information" substantially similar to that called for in a questionnaire attached to the order. The headnotes on the order show that it was issued in connection with Ex Parte No. MC-9, In the Matter of Filing of Contracts by Contract Carriers by Motor Vehicle; and Ex Parte No. MC-27, Central Territory Contract Carrier Rates.

Under the order of June 8, 1937, in the former case the contract truckers were required to file their contracts with the commission; but such contracts have not thus far been open to public inspection.

### Cunningham Lectures at Lafayette College

Two lectures on "The Present Railway Crisis" were delivered by Professor William J. Cunningham, the James J. Hill Professor of Transportation at the Harvard Graduate School of Business Administration, at Lafayette College, Easton, Pa., on April 4 at 8:15 p. m. and April 5 at 3 p. m., respectively. This is the initial series of lectures delivered under the Edward Eugene Loomis Memorial Foundation of the Department of Economics, established in memory of the late president of the Lehigh Valley. The foundation provides that each year a distinguished authority on transportation be invited to deliver a series of lectures on some phase of the subject before students, faculty and guests of the college. The lectures will later be available in printed form.

## Wheeler Submits Holding Co. Bill

### I. C. C. would be given power to regulate or abolish this type of corporation

Senator Wheeler, Democrat of Montana, chairman, and Senator Truman, Democrat of Missouri, member of the Senate committee on interstate and foreign commerce and of the subcommittee conducting an investigation of railroad finance, introduced in the Senate on March 31, a bill, S. 2016, which would give the Interstate Commerce Commission power drastically to control the activities of and, in some cases, to abolish the existence of railroad holding companies. The bill is another in the series of railroad bills which Senators Wheeler and Truman have been introducing this session and, as they explain, is a direct result of the recent railroad finance investigation conducted by the two senators.

"The primary purpose of this bill," says a statement by the two Senators which was released coincident with the introduction of the measure, "is to prevent the continuance of abuses associated with holding company activities, and by bringing about the elimination of certain holding companies, if it is determined by the Interstate Commerce Commission that their continuance would be contrary to the public interest. The bill applies in the railroad field the principles which Congress has already adopted and made effective for power and light utility companies. The desirability of comparable legislation for railroad holding companies has been widely recognized."

The Senators believe that the most important part of the bill empowers the commission to require a holding company to take such steps that it will cease to be a holding company. It is then pointed out that the commission can require this action only upon a finding, in accordance with standards set forth in the bill, that the continued existence of the company would be injurious to the public interest. The same part of the bill gives the commission power to lay down certain requirements with respect to corporations which are permitted to continue to be holding companies. The commission is authorized to require such holding companies to simplify their structures, dispose of certain of their assets, or take other steps which will prevent the recurrence of abuses of the types enumerated in the bill.

(*Continued on page 932*)

# "Make Work" Bee Put on Pullman

## Pepper pot-shots at practice of putting porters in places of conductors

Senator Pepper, Democrat of Florida, speaking in the Senate on March 30, criticized the Pullman Company for what he alleged to be its practice of substituting porters for sleeping car conductors on many Pullman runs over the country. Senator Pepper addressed his remarks particularly to the alleged failure of the Pullman Company to live up to its agreement with the Order of Sleeping Car Conductors and its alleged refusal to abide by various decisions of Railway Adjustment Boards which had ordered the company to reimburse conductors for back pay and reinstate them on runs where Negro porters had replaced them. Senator Pepper also obtained permission to print in the Congressional Record a statement by M. S. Warfield, president of the Order of Sleeping Car Conductors, in which the latter contended that the Pullman Company was gradually replacing conductors with porters and was refusing to abide by decisions of the Adjustment Boards.

After citing a case on the Chicago, Burlington & Quincy where the Pullman Company had allegedly replaced conductors with porters on line 161 between Kansas City, Mo., and Billings, Mont. and the Adjustment Board had ordered payment of back pay and replacement on their runs, Senator Pepper asked the company to "reconsider its policy and to observe what the statute requires with respect to the decisions of the Board." "This," he concluded, "will probably avoid the necessity of reviewing this legislation with a view to strengthening its provisions as to observance of awards, and will make for good feeling generally."

Mr. Warfield, in his statement, said that the Order of Sleeping Car Conductors recently obtained Adjustment Board awards regulating certain types of overtime work and interpreting the agreement with the carrier to mean that wherever it is established that conductor's work exists, the conductors have the right to perform it. "Under that interpretation of the agreement," he said, "the carrier does not have the right to remove conductors from their regular assignments and give their work to porters, thus making the porters do two men's work for one man's pay. In each case where porters are given conductors' work the conductor loses his job, but when this work is returned to conductors the porters remain on their jobs; they are simply relieved of the necessity of doing two men's work."

Instead of applying the award interpreting the agreement to mean that the conductors have the right to perform the work for which they were employed, Mr. Warfield wrote that "the Pullman Company continues to remove conductors from their assignments with accelerated speed."

Mr. Warfield also pointed out that the practice of leaving Pullman cars without conductors would, when it became generally known, invite criminals to enter cars and commit various crimes. He especially noted the possible danger to women who might be sleeping in a car. The company was accused of not advertising the fact that conductors did not accompany the train during its entire trip and Mr. Warfield went on to say that because of the fact that conductors were on hand at terminals to receive passengers, the traveling public took it for granted that they continued with the trains.

Mr. Warfield said that bills to require the continual operation of Pullman conductors on trains have been introduced in the States of Texas, Arkansas and Tennessee, and he promises that more such bills will follow. In Florida and South Carolina, he asserts, there are orders of the state commissions requiring the operation of Pullman conductors on all trains within the State.

# January Deficit at $8,721,320

## A decrease as compared with $33,320,304 deficit in January, 1938

The Interstate Commerce Commission, on March 31, made public its latest monthly compilation of selected income and balance sheet items, showing January's net deficit of the Class I roads to have been $8,721,320, as previously reported by the Association of American Railroads and noted in the *Railway Age* of April 1. This compares with a net deficit of $33,320,304 in January, 1938.

Sixty-two Class I roads reported net incomes for January while 70 reported deficits; in January, 1938, there were 34 net

### SELECTED INCOME AND BALANCE-SHEET ITEMS OF CLASS I STEAM RAILWAYS

Compiled from 135 Reports (Form IBS) Representing 140 Steam Railways
*(Switching and Terminal Companies Not Included)*

TOTALS FOR THE UNITED STATES (ALL REGIONS)

| | For the month of January 1939 | 1938 |
|---|---|---|
| *Income Items* | | |
| 1. Net railway operating income | $32,900,719 | $7,144,025 |
| 2. Other income | 12,308,292 | 12,673,274 |
| 3. Total income | 45,209,011 | 19,817,299 |
| 4. Miscellaneous deductions from income | 2,153,415 | 2,256,628 |
| 5. Income available for fixed charges | 43,055,596 | 17,560,671 |
| 6. Fixed charges: | | |
| 6-01. Rent for leased roads and equipment | 10,834,581 | 10,274,932 |
| 6-02. Interest deductions | *38,799,996 | *39,368,413 |
| 6-03. Other deductions | 181,174 | 225,058 |
| 6-04. Total fixed charges | 49,815,751 | 49,868,403 |
| Income after fixed charges | †6,760,156 | †32,307,732 |
| 8. Contingent charges | 1,961,165 | 1,012,572 |
| 9. Net income | †8,721,320 | †33,320,304 |
| 10. Depreciation (Way and structures and equipment) | 16,804,309 | 16,753,963 |
| 11. Federal income taxes | 2,037,096 | 1,461,085 |
| 12. Dividend appropriations: | | |
| 12-01. On common stock | 1,502,715 | 4,208,415 |
| 12-02. On preferred stock | 955,772 | 685,707 |
| | **Balance at the end of January** | |
| *Selected Asset Items* | 1939 | 1938 |
| 13. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707) | $648,741,252 | $661,289,371 |
| 14. Cash | 447,623,771 | 336,589,996 |
| 15. Demand loans and deposits | 16,061,338 | 15,218,812 |
| 16. Time drafts and deposits | 19,540,422 | 29,266,014 |
| 17. Special deposits | 55,708,954 | 63,731,482 |
| 18. Loans and bills receivable | 1,141,561 | 3,856,398 |
| 19. Traffic and car-service balances receivable | 58,426,095 | 51,975,541 |
| 20. Net balance receivable from agents and conductors | 45,828,306 | 42,200,443 |
| 21. Miscellaneous accounts receivable | 123,887,415 | 138,847,331 |
| 22. Materials and supplies | 318,804,040 | 383,383,686 |
| 23. Interest and dividends receivable | 15,773,386 | 20,379,773 |
| 24. Rents receivable | 1,199,068 | 1,039,215 |
| 25. Other current assets | 3,210,623 | 4,255,803 |
| 26. Total current assets (items 14 to 25) | $1,107,204,979 | $1,090,744,494 |
| | **Balance at the end of January** | |
| *Selected Liability Items* | 1939 | 1938 |
| 27. Funded debt maturing within 6 months§ | $189,339,804 | $101,293,185 |
| 28. Loans and bills payable# | 243,772,142 | 223,182,643 |
| 29. Traffic and car-service balances payable | 74,972,369 | 69,035,994 |
| 30. Audited accounts and wages payable | 242,120,041 | 248,768,020 |
| 31. Miscellaneous accounts payable | 59,546,837 | 60,767,709 |
| 32. Interest matured unpaid | 809,459,576 | 662,656,512 |
| 33. Dividends matured unpaid | 3,084,904 | 5,739,442 |
| 34. Funded debt matured unpaid | 630,502,034 | 506,309,059 |
| 35. Unmatured dividends declared | 2,048,703 | 4,393,315 |
| 36. Unmatured interest accrued | 95,892,289 | 96,492,344 |
| 37. Unmatured rents accrued | 27,578,188 | 25,918,598 |
| 38. Other current liabilities | 22,198,982 | 18,819,165 |
| 39. Total current liabilities (items 28 to 38) | $2,211,176,065 | $1,922,082,801 |
| 40. Tax liability (Account 771): | | |
| 40-01. U. S. Government taxes | $46,055,245 | $57,796,299 |
| 40-02. Other than U. S. Government taxes | 137,621,109 | 138,739,358 |

* Represents accruals, including the amount in default.
§ Includes payments which will become due on account of principal of long-term debt (other than that in Account 764, Funded debt matured unpaid) within six months after close of month of report.
# Includes obligations which mature not more than 2 years after date of issue.
† Deficit or other reverse items.

## NET INCOME OF LARGE STEAM RAILWAYS WITH ANNUAL OPERATING REVENUES ABOVE $25,000,000

*(Switching and Terminal Companies Not Included)*

| Name of railway | Net income after deprec. For the month of January 1939 | Net income after deprec. For the month of January 1938 | Net income before deprec. For the month of January 1939 | Net income before deprec. For the month of January 1938 |
|---|---|---|---|---|
| Alton R. R. | * $194,989 | * $165,297 | * $173,603 | * $134,653 |
| Atchison, Topeka & Santa Fe Ry. Systemø | * 804,634 | * 1,778,124 | 173,227 | * 796,770 |
| Atlantic Coast Line R. R. | 347,644 | 1,036,222 | 525,114 | 1,203,484 |
| Baltimore & Ohio R. R. | * 616,823 | * 2,118,536 | * 15,730 | * 1,508,943 |
| Boston & Maine R. R. | * 21,608 | * 534,394 | 108,188 | * 399,256 |
| Central of Georgia Ry.† | * 228,139 | * 333,189 | * 157,088 | * 260,836 |
| Central R. R. of New Jersey | * 332,534 | * 220,694 | * 216,475 | * 102,457 |
| Chesapeake & Ohio Ry. | 1,683,887 | 1,342,053 | 2,373,979 | 2,034,735 |
| Chicago & Eastern Illinois Ry.‡ | * 136,670 | * 149,902 | * 87,332 | * 98,133 |
| Chicago & North Western Ry.‡ | * 1,518,923 | * 2,056,416 | * 1,104,091 | * 1,630,940 |
| Chicago, Burlington & Quincy R. R. | 27,262 | * 681,093 | 458,976 | * 262,535 |
| Chicago Great Western R. R.‡ | * 111,329 | * 246,205 | * 66,682 | * 201,232 |
| Chicago, Milwaukee, St. Paul & Pacific R. R.‡ | * 1,486,297 | * 1,844,952 | * 1,002,978 | * 1,374,481 |
| Chicago, Rock Island & Pacific Ry.‡ | * 909,720 | * 1,299,957 | * 567,148 | * 953,725 |
| Chicago, St. Paul, Minneapolis & Omaha Ry. | * 297,706 | * 292,600 | * 249,277 | * 243,480 |
| Delaware & Hudson R. R. | 226,112 | * 282,793 | 311,352 | * 195,289 |
| Delaware, Lackawanna & Western R. R. | 9,005 | * 383,747 | 212,679 | * 176,854 |
| Denver & Rio Grande Western R. R.‡ | * 345,795 | * 523,536 | * 244,574 | * 423,411 |
| Elgin, Joliet & Eastern Ry. | 240,419 | * 48,974 | 322,479 | 34,847 |
| Erie R. R. (including Chicago & Erie R. R.)§ | * 419,760 | * 949,280 | * 113,179 | * 633,646 |
| Grand Trunk Western R. R. | * 216,943 | * 504,797 | * 120,584 | * 410,207 |
| Great Northern Ry. | * 1,281,908 | * 1,712,209 | * 973,636 | * 1,401,937 |
| Illinois Central R. R. | * 71,937 | * 37,028 | 478,856 | 500,629 |
| Lehigh Valley R. R. | 36,096 | * 188,494 | 215,242 | * 3,183 |
| Long Island R. R. | * 276,100 | * 229,187 | * 178,119 | * 131,463 |
| Louisville & Nashville R. R. | 642,032 | * 166,415 | 1,002,989 | 191,119 |
| Minneapolis, St. Paul & Sault Ste. Marie Ry.‡ | * 730,858 | * 726,352 | * 628,361 | * 624,912 |
| Missouri-Kansas-Texas Lines | * 385,078 | * 308,626 | * 273,737 | * 200,118 |
| Missouri Pacific R. R.‡ | * 1,115,789 | * 1,392,690 | * 753,055 | * 1,024,790 |
| New York Central R. R.¶ | * 735,529 | * 2,895,463 | 580,942 | * 1,557,188 |
| New York, Chicago & St. Louis R. R. | 53,513 | * 370,563 | 186,152 | * 227,684 |
| New York, New Haven & Hartford R. R.‡ | * 393,857 | * 1,173,409 | * 110,732 | * 892,482 |
| Norfolk & Western Ry. | 2,004,522 | 740,855 | 2,419,189 | 1,155,826 |
| Northern Pacific Ry. | * 854,683 | * 1,423,364 | * 572,291 | * 1,141,146 |
| Pennsylvania R. R. | 1,103,446 | * 1,615,474 | 3,248,448 | 416,781 |
| Pere Marquette Ry. | * 10,615 | * 405,726 | 187,452 | * 186,941 |
| Pittsburgh & Lake Erie R. R. | 162,034 | * 59,565 | 348,814 | 134,426 |
| Reading Co. | 366,362 | 54,429 | 626,332 | 311,372 |
| St. Louis-San Francisco Ry.‡ | * 1,122,035 | * 1,338,729 | * 865,970 | * 1,078,473 |
| St. Louis Southwestern Lines‡ | * 187,803 | * 228,828 | * 136,168 | * 176,875 |
| Seaboard Air Line Ry† | * 411,809 | * 652,595 | * 234,184 | * 484,274 |
| Southern Ry. | 11,156 | * 994,469 | 295,237 | * 738,380 |
| Southern Pacific Transportation System‖ | * 1,333,072 | * 2,606,514 | * 672,473 | * 1,912,917 |
| Texas & Pacific Ry. | 35,923 | * 41,962 | 135,870 | 56,877 |
| Union Pacific R. R. (including leased lines) | 790,227 | 213,627 | 1,422,391 | 831,845 |
| Wabash Ry.† | * 444,519 | * 851,922 | * 265,896 | * 672,619 |
| Yazoo & Mississippi Valley R. R. | * 112,057 | * 1,908 | * 72,765 | 39,781 |

* Deficit.
† Report of receiver or receivers.
‡ Report of trustee or trustees.
§ Under trusteeship, Erie R. R. only.
ø Includes Atchison, Topeka & Santa Fe Ry., Gulf, Colorado & Santa Fe Ry., and Panhandle & Santa Fe Ry.
¶ Includes Boston & Albany, lessor to New York Central R. R.
‖ Includes Southern Pacific Company, Texas & New Orleans R. R., and leased lines. The report contains the following information: "Income reported hereon excludes offsetting debits and credits for rent for leased roads and equipment and bond interest, between companies included herein. Interest on bonds of, and rental income from, separately operated solely controlled affiliated companies, whether earned or not, are included in this statement, in order that such income credits will offset income debits reflected in the net deficit of such companies. Operations of all separately operated solely controlled affiliated companies, resulted in a net deficit of $536,703 for January 1939 and $589,937 for January 1938, which is not reflected in this statement."

incomes and 98 net deficits. The consolidated statement and a statement showing the net incomes or net deficits of roads having operating revenues above $25,000,000 are given in the accompanying tables.

### Spring Meeting of Magazine Editors to Be Held at Chicago

The spring meeting of the American Railway Magazine Editors' Association will be held at Chicago on June 10.

### R. F. C. Rail Loans Since February, 1938

Jesse Jones, chairman of the Reconstruction Finance Corporation has announced that since the agency had resumed lending during February, 1938, it has authorized 28 loans to railroads totaling $148,611,112.

### Depressed Class Rates to Be Eliminated by Central States Motor Lines

The elimination of depressed class rates and depressed rate breakdowns now applying between key points in Central territory, was voted at a meeting of the board of directors of the Central States Motor Freight Bureau, Inc., at Chicago on March 29. This action would have the effect of revising motor carrier freight charges to meet those of the railroads as to class rates, and would make unnecessary the reduction of railroad rates as proposed by the railroads and not published pending action by the motor carriers. If the program is carried out it may mean a joint handling of rates and a permanent rate agreement between groups of the motor carriers and the railroads. The present class rates of the motor carriers are comparable to those of the railroads except where there is forwarder competition.

### Central States Governors Organize

The Central States Governors Industrial Council was organized at Chicago on March 30 to oppose the demands of eight southeastern states for lower freight rates. The organization's platform formulated at a meeting of representatives of the governors of Illinois, Indiana, Ohio, Michigan and Wisconsin, and subject to approval by the respective governors, aims at co-operative effort and action in protecting the interests of these states and their private shipping interests. The organization plans to protect industry, labor and the public against unfair legislation which would discriminate against this territory in favor of any other with respect to transportation; to co-operate among states and with shipping interests in participation before the Interstate Commerce Commission in matters affecting inter-territorial transportation problems; and to co-operate wherever possible with other groups in developing mutual understanding regarding their problems.

### Central Greyhound to Issue Notes

The Central Greyhound Lines, a motor carrier subsidiary of the New York Central, has asked the Interstate Commerce Commission for authority to issue $110,400 of four-year serial equipment mortgage notes, the proceeds to be used to purchase eight new busses.

### S. P. Gets Truck Route

In an unanimous decision by Division 5, the Interstate Commerce Commission has authorized the Pacific Motor Trucking Company, affiliate of the Southern Pacific, to purchase the common-carrier operating rights of the Salinas-King City Freight Line on a 47-mile route between Salinas, Cal., and King City, via Soledad.

### Chicago & Eastern Illinois Museum Exhibit—Correction

A news item describing a 15-ton exhibit demonstrating locomotive operation carried in the *Railway Age* of March 25, page 536, was erroneously reported as being in preparation by the Chicago & Western Illinois, instead of the Chicago & Eastern Illinois, due to a typographical error.

### Engel on A. A. R. Board

Edward J. Engel, the late Samuel T. Bledsoe's successor in the presidency of the Atchison, Topeka & Santa Fe, has also been chosen to serve out Mr. Bledsoe's unexpired term as a director of the Association of American Railroads. Mr. Engel was elected at the meeting of the A. A. R. board in Washington, D. C., on March 31.

### "Fan" Trip to Harrisburg

The Pennsylvania will operate a railroad tour out of New York to Harrisburg, Pa., on April 16. Upon arrival at Harrisburg, inspection will be made of the new steam and electric roundhouse at Macklay street and of the facilities at Enola classification yard. The round trip fare is $3.50 for the 390 miles.

### Diesel Buses for Burlington

A new fleet of 25 Diesel-powered buses will be put in service on the transcontinental bus routes of the Burlington Transportation Company within a few weeks. This will be the first fleet of Diesel buses ever installed in long distance service. In addition to the innovation of Diesel power, the new buses will be completely air conditioned, and double-pane safety glass will be set in a sash which will prevent fogging or frosting, even under extreme weather conditions. The buses are of the

conventional 37-passenger size, but, for the greater comfort of passengers, only 28 seats will be provided, so as to give the passengers greater leg room and more comfort. The seats will be of sponge rubber, and adjustable to five positions.

### Status of Chicago, South Shore & South Bend

Examiner Earl M. Steer has recommended in a proposed report that the Interstate Commerce Commission find that the Chicago, South Shore & South Bend does not fall within the terms of the exemption proviso in section 1 (a) of the Carriers Taxing Act of 1937 or section 1(a) of the Railroad Retirement Act of 1937.

### Texas Rates to Be Studied

A public hearing has been called by the Railroad Commission of Texas for April 18, to inquire into the reasonableness of existing interstate rates and the reasonableness of differentials which prevail between Texas and the East. The investigation will concentrate on the class rates that are in effect in Texas and those that are in effect in official territory east of the Mississippi and north of the Ohio river.

### New York Railroaders to Hear Lea

The New York Railroad Club will hold its next meeting on Friday, April 21, at the Engineering Societies building, 29 W. 39th street, New York. Congressman Clarence F. Lea, chairman of the House Committee on Interstate and Foreign Commerce, and author of the Lea "omnibus bill" for extended transport regulation, will speak on "Transportation Legislation."

### Western-Southern Class Rates Case Modified

The Interstate Commerce Commission has further modified its report in No. 26510, Western-Southern Class Rates, the decision in which was reviewed in the *Railway Age* for April 30, 1938. This is the case wherein the commission completed its work of prescribing joint inter-territorial rates lower than combinations on the gateways between all the major rate territories east of the Rocky Mountains.

### $45,000 for A. A. R. Research on High-Speed Freight Car Trucks

The board of directors of the Association of American Railroads, at its March 31 meeting in Washington, D. C., voted a $45,000 appropriation for a one-year research project on high-speed freight car trucks. Plans for the project, which will be under the direction of the A. A. R. Mechanical Division, call for the installation of several different types of high-speed trucks on the cars of a test train to be operated on the Pennsylvania over a 150-mile stretch of track between Altoona, Pa., and Lock Haven.

### Kentucky Complains of Rate Discrimination

The Railroad Commission of Kentucky has charged, in a complaint filed with the Interstate Commerce Commission, that the railroads serving that State are discriminating against passengers traveling between Kentucky and Washington, D. C. in that they are required to pay rates on a higher basis than those in effect from other states to the Capitol City. The complaint of the Kentucky commission asks that the Interstate Commerce Commission investigate the case and order the railroads to cease such alleged discriminations.

### Railroads on "Town Hall" Program April 13

The popular "Town Hall" radio forum, which is broadcast each Thursday evening over the "blue network" of N. B. C., will devote its April 13 program to a discussion on "How Can We Solve the Railroad Problem?" Speakers will be Senator Wheeler, Commissioner Eastman and A. A. R. President Pelley.

### Lackawanna Announces Safety Trophy Award

The Delaware, Lackawanna & Western has awarded the President Davis safety trophy for the second consecutive year to the Syracuse & Utica division, as the winner of the divisional competition based on the greatest improvement and the greatest reduction of accidents of all kinds. It was also reported that no fatal accidents were incurred in the transportation department of the road during the year 1938, which establishes a new record. Comparison shows that in 1911, when the safety movement was initiated on the road, 70 persons lost their lives and 2,319 persons were injured, as contrasted with 5 deaths and 305 injuries in 1938.

### U. P. To Develop Industrial District in Omaha

The Union Pacific has purchased a 500-acre tract of land in Omaha, Neb., on which it will immediately establish a large industrial district, comparable in many respects to the Union Pacific's Fairfax industrial district in Kansas City, Kan. The tract is situated north of Levi Carter Park and south of the Missouri river, with a river frontage of 1½ miles. It lies partly within the city and partly outside the city in Douglas County. The U. P. will construct a railroad line into the district at once, which will connect with its Carter Lake Spur at the northwest corner of Levi Carter Park.

### N. Y. Crossing Work to Be Done by State

The amended Wick grade-crossing elimination bill of New York state, the enabling act to carry out the provisions of Section 14, Article 7, of the state constitution which requires the state to pay all the cost of grade crossing eliminations except that portion of the projects which directly benefits the railroads themselves (and not more than 15 per cent), has been enacted into law.

The legislation meets the objection of Governor Lehman and a majority of the Assembly against giving power over the expenditure "of the people's money to railroad-dominated contractors."

### Stoker Appeal Deferred

Railroads will defer their decision with respect to further court appeals from the Interstate Commerce Commission's order in the automatic stoker case until J. J. Pelley, president of the Association of American Railroads, has had an opportunity to discuss the matter with D. B. Robertson, president of the Brotherhood of Locomotive Firemen & Enginemen. This decision was reached at March 31's Washington, D. C., meeting of the A. A. R. board of directors.

As noted in the *Railway Age* of March 25 the Interstate Commerce Commission has postponed to April 15 the effective date of this order, which was recently upheld by a three-judge federal court at Cleveland, Ohio.

### Chicago Traffic Club Elects Officers

At the annual election of the Traffic Club of Chicago on March 30, the following officers were selected for the ensuing year: President, W. C. Douglas, assistant general freight traffic manager of the New York Central; first vice-president, E. R. Gustafson, traffic manager of the Universal Atlas Cement Company; second vice-president, W. Haywood, freight traffic manager of the Illinois Central; third vice-president, A. H. Schwietert, assistant traffic director of the Chicago Association of Commerce; secretary, D. W. C. Becker, director of the traffic management department of LaSalle Extension University; and treasurer, R. J. Wallace, traffic manager of the Jaques Manufacturing Company.

### C. & O. Directors Sued

Directors of the Chesapeake & Ohio were sued collectively and individually for $52,000,000 in common pleas court at Cleveland, Ohio on March 31 by a stockholder who charged illegal purchase of that amount of stock of the Erie and the Chicago and Eastern Illinois. The stockholder, Irving D. Kartas, alleged that between 1926 and 1938, the C. & O. directors bought 1,196,000 shares of Erie common at a total price of $44,300,000. Although the Interstate Commerce Commission had denied the C. & O. the right to acquire this interest, the directors "devised a means to complete the transaction, conceal it and circumvent the I. C. C.," the petition asserted. The C. & O. directors, in 1930, bought 84,944 preferred shares of C. & E. I. through Paine-Webber & Co. at a price of $8,000,000, which the suit further contends was $2,000,000 above the then market value of the stock. The purchase likewise was illegal and contrary to orders of the I. C. C., it was charged.

### First Trip of General Pershing April 11

The first run of the General Pershing, a Zephyr just purchased by the Chicago, Burlington & Quincy, will be made on April 11, when the train will carry members of the Chicago Association of Commerce on a special trip from Chicago to Burlington, Iowa, and Quincy, Ill. and re-

turn. The train will leave Chicago at 8:00 a.m. and will arrive in Burlington at 10:45 a.m. where business men from that city will join the party. Dinner will be served at the Quincy Country Club, and the return trip will start at 3.00 p.m. with arrival in Chicago at 8.30 p. m.

The train will be placed in regular service between St. Louis, Mo. and Kansas City on April 30.

## I. C. C. Acts on Texas Intrastate Rates

The Interstate Commerce Commission has found in No. 28055, Increases in Texas Freight Rates and Charges, that intrastate rates on fruits (other than citrus fruits), melons, and vegetables, and horses and mules, required by State authority in Texas through failure or refusal to permit increases in such intrastate rates corresponding to those maintained on interstate traffic, result in unjust discrimination against interstate traffic. Intrastate rates on certain class and commodity traffic were found not to be unjustly discriminatory. This case arose out of the failure or refusal of the Railroad Commission of Texas to increase the intrastate rates to the level set by the commission on interstate rates in the Ex Parte 123 case.

## Launch Nationwide Campaign to Reduce Damage

More than 20,000 shippers and receivers of freight, together with representatives of various trade and commercial organizations, have launched a nation-wide campaign to reduce loss and damage of freight in transit. The purpose of the campaign to be conducted in April, is to ascertain and remove, so far as possible, the causes contributing to loss and damage so that shipments may be sold to customers "at a profit" rather than to the railroads "at cost," and thus avert the large economic waste involved in loss and damage. "Perfect Shipping and Careful Handling" is the slogan of the movement to "Make Shipments Safe for Transportation and Transportation Safe for Shipments," while co-operation is the keynote of the campaign.

The campaign is being sponsored by the National Association of Shippers Advisory Boards, with T. C. Burwell as general chairman of the national management committee. Members of the campaign committee working with Mr. Burwell include the chairmen of all the Freight Loss and Damage Prevention Committees of the thirteen individual shippers' advisory boards who will direct the various activities within their respective territories through April, and who will have the full support and co-operation not only of the individual railroad companies and the Railway Express Agency but also the various sections of the Association of American Railroads and many trade organizations. The combined effort to curtail much of the loss and damage of freight, has likewise been endorsed by the Department of Commerce and the Chamber of Commerce of the United States.

## N. Y. Fair Visitors Can See New England at No Extra Charge

Member roads of the New England Passenger Association have successfully negotiated provisions whereby the $90 coach or $135 Pullman so-called "grand circle" tours, recently announced by the Association of American Railroads in connection with the New York and San Francisco World Fairs, will be made to apply through New England. In addition, special low fares from the midwest areas about Chicago and St. Louis, Mo., to the New York World's Fair have been made to apply into New England, including stopover at points therein. Thus purchasers of either type of special low fares will be able, by reason of these provisions, to include a visit to New England as a part of their trips at no additional traveling cost.

## Stewardesses on National Ltd.

After almost two years experience with stewardess-nurse service on its Shenandoah Limited, the Baltimore & Ohio extended this feature of coach luxury to its National Limited between St. Louis, Mo., and New York, effective April 1. The road was the first in the east to place stewardess-nurses on its trains, inaugurating the service on the Shenandoah between New York and Chicago, April 25, 1937.

The five women selected for the new service on the National Limited have been chosen out of over 1,000 applications submitted. All are graduate and registered nurses with service records in leading hospitals. In addition to their qualifications as nurses, they have been chosen for their work on the basis of personality, poise, alertness, initiative and general ability.

## Railroad Motor Carrier Operations

The Illinois Central has been authorized by Division 5 of the Interstate Commerce Commission to operate as a common carrier by motor vehicle in interstate and foreign commerce between its station at Carbondale, Ill., and points in southern Illinois at which its stations are located, over specified routes, subject to certain conditions.

The Pennsylvania Truck Lines, Inc., a wholly-owned subsidiary of the Pennsylvania, would be given authority to purchase the operating rights and property of the Central Motor Freight Lines, Inc. (Dane Sprankle, trustee) if the Interstate Commerce Commission adopts the report and recommended order of James L. Smith, an Examiner in the Section of Finance of the Bureau of Motor Carriers. The routes involved are between Chicago and numerous Ohio points, via Valparaiso and Fort Wayne, Ind., and also via Kentland and Indianapolis, Ind., and irregular routes between points and places within a radius of 350 miles of Columbus, Ohio.

## Pliny Fisk, Alco Organizer, Dies at 78

Pliny Fisk, one of Wall Street's leading investment bankers before the War, and financial backer in the organization of the American Locomotive Company, died of cancer in New York on March 30, at the age of 78. The son of a partner of the Civil War financial house of Fisk & Hatch, Mr. Fisk carried on the family's business as Harvey Fisk & Sons.

In 1901, after conferences with the own-

## A. A. R. Members Agree on "Fundamentals"

Discussion of the legislative situation at March 31's Washington, D. C. meeting of the Association of American Railroads' board of directors turned up differences of opinion as to certain features of some of the pending bills, but a statement issued after the meeting's close sought to emphasize the idea that such differences ran to details rather than fundamentals. Major differences of opinion, it was learned, developed with respect to the committee-of-six's proposed Transportation Board and proposed amendments to Section 77 of the bankruptcy law, a situation which had previously been disclosed in the presentations of General Counsel Marcus L. Bell of the Chicago, Rock Island & Pacific and Vice-President Samuel H. Cady of the Chicago & North Western at House committee on interstate and foreign commerce hearings on Chairman Lea's omnibus transport bill.

"The railroad legislative situation, including the status of the bills which have been introduced," said the A. A. R. statement, "was fully discussed at the meeting of the Board of Directors of the Association of American Railroads today. The situation is encouraging and there was unanimity of opinion as to the fundamentals of the proposed legislation. There are naturally some differences of views as to certain features of some of the bills now under consideration."

Among other discussions at the meeting was some talk of that feature of the Railroad Program which calls for Railway Labor Act amendments. As a result of such discussion it is not expected that the desired Labor-Act amendments will be urged at the present time.

The matter of joint rates with motor carriers was also discussed, but no action was taken. As noted in the *Railway Age* of March 25, the Department of Justice has received a Sherman Anti-Trust Act complaint based on an A. A. R. resolution in that connection; while Luther M. Walter, co-trustee of the Chicago Great Western, complained about the same resolution in his recent testimony at the Lea-bill hearing, which was also reported in the issue of March 25.

ers of the Rhode Island Locomotive Works as to consolidating a group of small locomotive builders into one large concern, he financed the incorporation of the American Locomotive Works with a capital stock of $50,000,000 to take over Rhode Island, Cooke (both owned by International Power Company), Brooks, Manchester, Pittsburgh, Richmond, Schenectady and Dickson, with a consolidated output capacity, based on 1900 volume, estimated at more than 44 per cent of the country's total. Mr. Fisk became a director and member of the executive committee of the new company and was instrumental in persuading Samuel R. Calloway, then president of the New York Central & Hudson River, to head the consolidated firm.

## Hearings Begun in G. M. & N. M. & O. Merger Case

The Interstate Commerce Commission was told on April 4 that the consolidation of the Gulf, Mobile & Northern and the Mobile & Ohio will produce estimated savings of $925,930 annually in operating expenses, joint facility rents, and equipment rents and taxes. F. M. Hicks, executive vice president of the G. M. & N. gave the commission this information regarding the proposed merger as hearings opened before the I. C. C. in Washington, D. C. He went on to explain that this estimate of savings did not include wage dismissal payments, which were expected to average $227,000 annually for five years. He further testified that an agreement has already been made with railroad labor to take care of the displaced workers under the so-called Washington Agreement.

At the April 5 session Mr. Hicks was cross-examined by E. A. Smith, general attorney for the Illinois Central, which is opposing the merger application. Mr. Smith said during cross-examination that his company was interested in the merger because it feared it would lose $600,000 a year in revenues if the two roads are consolidated. At one time the cross-examination became so heated between Mr. Hicks and Mr. Smith that Examiner Molster was forced to call for a short recess.

It is expected that the hearings on the merger plan will run well into next week due to the large amount of evidence to be placed in the record and the detailed cross-examination that is taking place.

## Further Hearings Assigned in Stockyards Probe

The Interstate Commerce Commission has assigned further hearings in Ex Parte 127, involving the status of public stockyard companies, before Commissioner Splawn and Examiners Carter and Haden. At Fort Worth, Tex., on May 11, Hotel Texas, the commission will receive evidence with respect to the Fort Worth Stock Yards Company.

At Denver, Colo., on May 15, at the offices of the Colorado Public Utilities Commission, evidence will be received with respect to the Denver Union Stock Yard Company. At Seattle, Wash., on May 22, Hotel Olympic, testimony will be taken regarding the Portland Union Stock Yards Company of North Portland, Ore. and the Union Stock Yards Company of Seattle, Seattle, Wash.

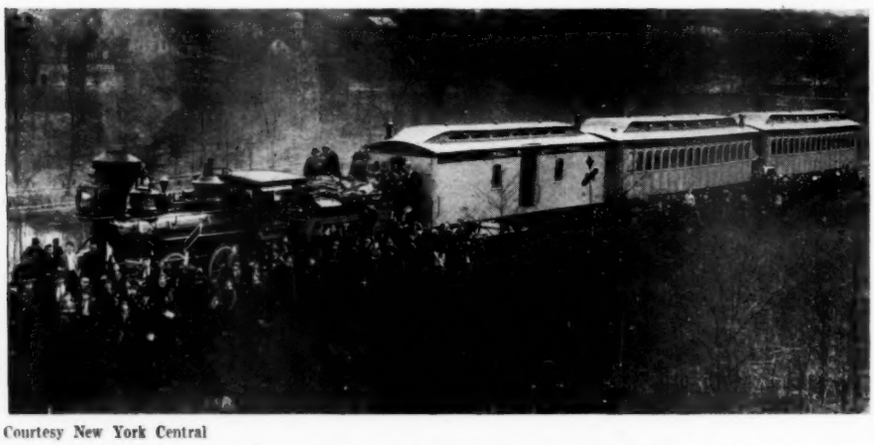
At San Francisco, Calif., on May 26, Hotel Empire, evidence will be taken with respect to the Los Angeles Union Stock Yards Company; the South San Francisco Union Stockyards Company of San Francisco, Calif., and the South San Francisco Union Stockyards Company of Stockton, Calif.

The commission announcement states that the dates and places at which further hearings will be held will be announced later.

## Antique Train Makes Publicity Run on N. Y. Central

A locomotive and three-car train of the early 1870's covered the 15 miles between High Bridge station, New York city, and Woodlands, on the New York Central's picturesque single-track Putnam division, on the afternoon of March 31 in a special junket of the Wednesday Culture Club that meets on Fridays (a luncheon organization of authors, artists and others of an ilk who attract newspaper publicity easily) as the guests of Edward Hungerford, railroad pageant director for the New York World's Fair.

The locomotive, named the "J. W. Bowker", built in 1871 for the Virginia & Truckee, is now owned by the Pacific Coast chapter, Railway & Locomotive Historical Society, and has been brought East for the New York fair. Its attendant cars, built for the Baltimore & Ohio, are of the same period and will "act" in Mr. Hungerford's pageant at the fair.



Courtesy New York Central

**School Children Learned History "Visually" When This Locomotive and Train of the 1870's Ran Over the New York Central's Putnam Division**

## Annual Session Freight Station Section

The annual session of the Freight Station section of the Operating-Transportation division of the Association of American Railroads will be held at the Stevens Hotel, Chicago, on May 10-11. This is the first annual session since 1934. The two-day meeting will be devoted to the discussion of subjects of vital interest to freight agents, and each subject will be presented by one or two representatives selected because of his familiarity with it, and will be discussed in open forum. The program is as follows:

**May 10 Morning Session**

Address by J. T. Gallagher, chairman, Freight Station section.
Address by G. Metzman, manager of freight transportation of the New York Central, and chairman of the Operating-Transportation division.
Address by Col. R. S. Henry, assistant to the president of the Association of American Railroads.
Address by G. R. Littell, terminal agent of the Baltimore & Ohio.

**Afternoon Session**

Committee on Station Traffic
Traffic Solicitation.
Stopping in Transit.
Committee on Station and Terminal Operation
Car Service and Car Handling by W. C. Kendall, chairman of the Car Service division of the Association of American Railroads.
How Can We Improve the Method of Handling L.C.L. Freight?

**May 11 Morning Session**

Committee on Station Office Operation
Delay in Making Returns on C.O.D. Shipments by Railroads.
Use of Shipping Ticket in Lieu of Freight Waybill on L.C.L. Traffic.
Pick Up and Delivery Service.
Safety First.

**Afternoon Session**

Committee on Loss and Damage
Damage to Furniture.
What Can Be Done to Bring About an Improvement in Stowing L.C.L. Freight at Stations to Eliminate Loss and Damage?
Inspection of Freight and Preparation of Inspection Reports.

## The Canadian Roads in February

The Canadian Pacific in February had net operating revenues of $233,367, a decrease of $90,787 from the $324,155 reported for the corresponding month last year. The month's gross totaled $9,195,883 against $9,382,914 while operating expenses were off to $8,962,516 from $9,058,759 a year ago.

For the two months ended February 28, gross totaled $18,894,946 as compared with $19,698,374, a decrease of $803,428. Operating expenses were $616,496 lower at $18,200,576 compared with $18,817,072 a year ago, leaving net of $694,370 against $881,302, a drop of $186,931.

Gross operating revenues of the Canadian National for February were $13,069,775 as compared with $13,289,721 a year ago, a decrease of $219,946. Operating expenses were down to $14,357,117 from $14,636,940, leaving a net operating deficit of $1,287,342, an improvement of $59,877 over the $1,347,219 reported for February, 1938.

For the two-month period ending February 28, operating revenues were $26,564,780, against $26,611,353 in the corresponding period of last year. Operating expenses were $28,460,318, compared with

$29,469,325 for the similar period of 1938, leaving a deficit of $1,895,538 against $2,857,972 a year ago.

## Freight Car Loading

Loading of revenue freight for the week ended April 1, totaled 604,241 cars, the Association of American Railroads announced on April 6. This was a decrease of 1,221 cars, or two-tenths of one per cent, below the preceding week, an increase of 80,752 cars, or 15.4 per cent, above the corresponding week in 1938 and a decrease of 116,988 cars, or 16.2 per cent, below the same week in 1937.

As reported in last week's issue, the loadings for the previous week ended March 25, totaled 605,462 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

**Revenue Freight Car Loadings**

For Week Ended Saturday, March 25

| Districts | 1939 | 1938 | 1937 |
|---|---|---|---|
| Eastern | 135,979 | 122,482 | 171,566 |
| Allegheny | 120,610 | 105,411 | 162,032 |
| Pocahontas | 43,003 | 33,652 | 59,539 |
| Southern | 97,811 | 94,941 | 120,668 |
| Northwestern | 70,206 | 70,216 | 78,460 |
| Central Western | 93,050 | 96,995 | 107,452 |
| Southwestern | 44,803 | 49,255 | 56,699 |
| Total Western Districts | 208,059 | 216,466 | 242,611 |
| Total All Roads | 605,462 | 572,952 | 756,416 |
| Commodities | | | |
| Grain and Grain Products | 31,680 | 37,898 | 27,779 |
| Live Stock | 11,315 | 10,619 | 10,807 |
| Coal | 113,805 | 81,422 | 171,994 |
| Coke | 7,163 | 4,096 | 11,304 |
| Forest Products | 28,109 | 27,501 | 38,012 |
| Ore | 7,577 | 7,649 | 12,035 |
| Merchandise L.C.L. | 153,714 | 152,811 | 170,403 |
| Miscellaneous | 252,099 | 250,956 | 314,082 |
| March 25 | 605,462 | 572,952 | 756,416 |
| March 18 | 594,568 | 540,365 | 754,922 |
| March 11 | 591,691 | 556,730 | 744,499 |
| March 4 | 598,691 | 552,892 | 730,329 |
| February 25 | 560,609 | 511,939 | 692,393 |
| Cumulative Total, 12 Weeks | 6,990,264 | 6,635,192 | 8,464,072 |

*In Canada.*—Carloadings for the week ended March 25 totaled 44,132 as compared with 40,428 in the previous week, and 43,071 a year ago, according to the compilation of the Dominion Bureau of Statistics.

| | Total Cars Loaded | Total Cars Rec'd from Connections |
|---|---|---|
| Total for Canada: | | |
| Mar. 25, 1939 | 44,132 | 23,259 |
| Mar. 18, 1939 | 40,428 | 22,773 |
| Mar. 11, 1939 | 41,764 | 23,096 |
| Mar. 26, 1938 | 43,071 | 21,897 |
| Cumulative Totals for Canada: | | |
| Mar. 25, 1939 | 484,829 | 273,358 |
| Mar. 26, 1938 | 539,423 | 265,548 |
| Mar. 27, 1937 | 560,541 | 335,154 |

## New Express Rates Effective April 15

Revised express rates which provide downward adjustments in charges on packages of 21 lb. or under for all distances and up to 50 lb. for shorter distances and increased charges on shipments over 100 lb. in weight will be placed in effect on April 15 by the Railway Express Agency. The new schedules, which represent the first general change in the express rate structure since 1925, were approved by the Interstate Commerce Commission on February 24.

The revision is calculated to bring increased traffic by reason of lower charges on competitive shipments, while increased rates on heavier shipments will bring higher revenues to off-set the increased costs of handling the business. In all, the changes are calculated to produce additional revenue of about $10,000,000.

While increases of 10 per cent will be made in first class rates per 100 lb. less than $9, and 5 per cent on rates over that figure, the change in method of calculating the charges on express shipments weighing less than 100 lbs., will bring about a substantial number of reductions in the cost of forwarding of small packages by express, under first and second class.

## Walter L. Ross Dies

Walter L. Ross, who resigned from the presidency of the New York, Chicago & St. Louis (Nickel Plate) on February 8, 1933, because of ill health, died at Phoenix, Ariz. on April 5. Mr. Ross was born at Bloomington, Ill., on January 1, 1865, and began his career as a Western Union messenger boy at Pontiac, Ill. He entered railway service in 1887 as an office boy on the Wabash, after which he was consecutively operator, chief clerk and cashier, clerk in the trainmasters and dispatchers offices, local agent on the Wabash and Indiana, Illinois & Iowa (now part of the New York Central), general agent on the I. I. & I. and division freight and passenger agent on the same road. On June 1, 1904, he went with the Toledo, St. Louis & Western (now Nickel Plate), as general passenger agent and on April 1, 1905, he was appointed also general freight agent. On December 1, 1907, he was appointed general traffic manager of the T. St. L. & W., and the Chicago & Alton (now the Alton) with headquarters at Chicago. From 1909 to September 1, 1912, he was vice-president in charge of traffic and from 1910 to 1911, he served also as vice-president of the Iowa Central and the Minneapolis & St. Louis. Mr. Ross was elected president of the T. St. L. & W. on September 1, 1912, and later from October, 1914, to January 1, 1923, when it became the Nickel Plate, served as receiver of that road. Thereafter he served as senior vice-president of the Nickel Plate until his election as president in 1926. Mr. Ross was also a director and a member of the executive committee of the Nickel Plate, and of the Detroit & Toledo Shore Line, a vice-president, director and member of the executive committee of the Toledo Terminal, a director of the Peoria & Pekin Union and a director and member of the executive committee of the Cleveland Union Terminals. Mr. Ross continued for a time after his resignation as president of the Nickel Plate, as a director and member of the executive committee of that road, as president and later vice-president of the Detroit, Toledo & Shore Line and the Toledo Terminal.

Walter L. Ross

## Michigan Congressman Attacks Beaver-Mahoning Canal

Representative Paul W. Shafer, Republican of Michigan, speaking in the House of Representatives on April 3, attacked the proposed Beaver-Mahoning Canal, saying that approximately 39,000 railroad employees would be indirectly affected if the Congress takes favorable action on the legislation which is now pending before the House rivers and harbors committee. He went on to say that he was certain that "each of these 39,000 railroad workers are opposed to this proposed project because they know it would mean certain injury to the employment and welfare of their fellow workers in Ohio."

"The proposed canal," the Michigan lawmaker continued, "would be nothing more than another agency of transportation to compete with railroads. The proposed canal would obviously obtain its required traffic from the existing transportation agencies and therefore would mean the destruction of jobs of men now employed by the railroads. An analysis of the Beaver-Mahoning Canal project leads me to believe that it is just another subsidy brainstorm."

Mr. Shafer also had printed in the Congressional Record a statement by D. B. Robertson, international president of the Brotherhood of Locomotive Firemen and Enginemen dealing with the subject of subsidies to water and air transport.

In the same issue of the Record Senator James J. Davis, Republican of Pennsylvania, obtained leave to print an editorial from the "Pittsburgh Press" of March 20, entitled "The Lake Erie Canal" which concludes with an expression of hope that "Congress, despite the report of the Army engineers, will refuse to appropriate the requested funds for this waterway."

## Reports on Motor Applications

The Interstate Commerce Commission's Division 5, in an unanimous decision, has authorized the merger of the operating rights and property of the Central Illinois Bus Company into the Santa Fe Trails of Illinois, an affiliate of the Atchison, Topeka & Santa Fe.

Examiner L. W. Cunningham has recommended in a proposed report that the commission find the Landa Motor Lines, affiliate of the Louisiana, Arkansas & Texas to be a common-carrier trucker and conditionally authorize it to operate as such over specified routes between points in Louisiana and Texas which are stations on

the L. A. & T. The latter's similar application the examiner would deny because the railroad did not propose to operate motor vehicles directly or by lease, and thus it would not be a "common carrier by motor vehicle under section 203(a) (14)" of the Motor Carrier Act. The proposed report also covers a L. A. & T. storedoor collection and delivery application which Examiner Cunningham would dismiss on the basis of the Scott Brothers doctrine that such services are not subject to regulation under the Motor Carrier Act.

Joint Board No. 77, composed of Lon A. Smith of Texas, would have the commission conditionally authorize the Texas & Pacific Motor Transport Company, affiliate of the Texas & Pacific, to extend its common-carrier trucking service over a route between Marshall, Tex., and Texarkana.

## P. R. R.'s "Spirit of St. Louis" to Operate 20-Hr. Service Eastbound

The Pennsylvania will inaugurate 20-hour service from St. Louis, Mo., to New York on Sunday, April 30, when the time of its eastbound "Spirit of St. Louis" will be cut from the present 20 hours, 35 min., to a straight 20 hours. Concurrently, the time from St. Louis to Philadelphia, Pa., will be cut to 18 hours, 29 min.; to Baltimore, Md., 19 hours, 33 min.; to Washington, D. C., 20 hours, 25 min. The saving in running time has been accomplished chiefly by reductions in time at terminals and division points.

Also effective April 30, an additional eastbound train, to be known as the "St Louisan," constituting a counterpart of the present westbound train of the same name will be placed in operation between St. Louis, Philadelphia and New York, taking over the present schedule and service of the "Spirit of St. Louis," except that it will not carry Baltimore or Washington cars.

On its new 20-hour New York schedule the Spirit of St. Louis will provide all-room Pullman service exclusively, substantially duplicating the facilities of the Chicago-New York Broadway Limited. Special features will include a cocktail bar, an observation car and a lounge car in the center of the train. Appointments, fittings and decorations are similar to the new Broadway Limited equipment described in the *Railway Age* of June 18, 1938, page 1000. The new eastbound St. Louisan will provide standard-type Pullman accommodations to Philadelphia and New York, including upper and lower berths, compartments, drawing rooms and lounge car service, together with reclining-seat coach service. On its new eastbound schedule the Spirit of St. Louis will leave St. Louis at 12 o'clock, noon, arriving in New York at 9 a. m. and at Washington at 9:25 a. m. The arrival at New York will be almost an hour earlier than at present. The new eastbound St. Louisan will leave St. Louis at 12.15 and arrive in New York at 9.50 a. m.

## Employees of Private Carriers Ruled Under Wages and Hours Act

General Counsel Calvert Magruder, of the Wage and Hour Division, U. S. Department of Labor, has ruled that employees of private motor carriers and employees of common and contract carriers other than drivers are not exempt from hour provisions of the Fair Labor Standards Act. Such employees, says Mr. Magruder, of course, must be engaged in interstate commerce or in the production of goods for interstate commerce to be subject to the Act at all.

Mr. Magruder's opinion was contained in an interpretative bulletin on the scope of an hours exemption provided in the act for employees "with respect to whom the Interstate Commerce Commission has power to establish qualifications and maximum hours of service pursuant to the provisions of section 204 of the Motor Carrier Act, 1935."

The opinion said that the scope of the Interstate Commerce Commission's power under section 204 had not been fully determined by the commission. The opinion therefore is subject to revision if future action by the commission so requires and merely indicates the course which Administrator Elmer F. Andrews of the Division will follow in performing his administrative duties, unless directed otherwise by the courts or unless the bulletin itself is later revised.

The commission has already established maximum hours of service for drivers of motor vehicles operated by common and contract carriers (a standard 60-hour week) and such drivers will be considered exempt from the maximum hours provisions of the Fair Labor Standards Act, according to General Counsel Magruder.

The commission now has pending a case in which it has to decide whether it should control the maximum hours of non-operating employees or permit them to be regulated under the Fair Labor Standards Act. Oral argument in this case, held on December 16, 1938, was digested in the *Railway Age* for December 24, 1938, page 922. Hearings have also been held on the question of whether or not the commission shall regulate private-truck drivers, but no decision has been reached as yet.

## Club Meetings

The Committee on Railroad Support will hold its next meeting on April 14 in room 808, Pennsylvania station, New York. An open forum meeting will be held in which particular attention will be given to current railroad legislation.

The Traffic Club of Newark, N. J., will hold its next forum on April 10 at the Essex house, Newark.

The next session of the Metropolitan section, Society of Automotive Engineers, scheduled for April 13 in the Hotel New Yorker, New York, will be devoted to a discussion of Diesel power. The chief speaker will be W. J. Davidson, president of the society and general sales manager, Diesel division, General Motors Corporation, whose talk will be illustrated by slides and a display of parts. Discussions by engineers of various motor manufacturers will follow.

The next meeting of the Eastern Car Foremen's Association will be held on April 14 at 8 p. m. in the Engineering Societies building, 29 West 39th street, New York. A talking motion picture "The Story of the Chilled Car Wheel" will be shown. P. J. Hogan, supervisor car inspection and maintenance, New York, New Haven & Hartford, will present a paper entitled "Wheel Defects and Failures," from the viewpoint of the car inspector and repairer.

The Central Railway Club of Buffalo will hold its next meeting on April 13 at the Hotel Statler, Buffalo, N. Y. C. M. Davis, chief engineer, transportation department, General Electric Company, Erie, Pa., will present a paper entitled "Steam-Electric Locomotive," which will be supplemented with colored lantern slides and motion pictures, and followed by open discussion. The Central Railway Club chorus will entertain.

The Southern and Southwestern Railway Club will hold its next meeting on May 18 at 10 a. m. at the Ansley Hotel, Atlanta, Ga. A paper entitled "Diesel Motive Power" will be presented by L. E. Caldwell, educational director, Electro-Motive Corporation, LaGrange, Ill.

## Transport Bills Received in Congress

Senator Reynolds, Democrat of North Carolina, has introduced in the Senate S. 1981, a bill which would amend the Act relating to the transportation of explosives. Senator Truman, Democrat of Missouri, has offered (by request) a bill, S. 1990, which would require the Government to pay applicable commercial rates for the rail transportation of persons or property, except as to the transportation of persons or property in the military or naval service.

Senator Truman has also introduced (by request) another bill, S. 1989, which provides for the reimbursement of railroads by the U. S. Government for the cost in excess of benefits in cases where railroads are required to alter or reconstruct bridges in connection with the improvement of navigable waters and other public projects.

Senator Wheeler, Democrat of Montana, and Representative Crosser, Democrat of Ohio, have introduced in both houses identical bills, S. 2017 and H. R. 5474, which would amend the Railroad Unemployment Insurance Act.

Representative Caldwell, Democrat of Florida, has introduced in the House H. R. 5472, a bill to extend the services and operations of the Inland Waterways Corporation to Carrabelle, Fla.

Senator Byrd, Democrat of Virginia, has offered S. 2005, a bill providing for a survey with preliminary estimates of cost for the proposed construction of railroad and automobile truck tunnels across the Potomac River at Washington, D. C. There is a similar bill pending in the House.

The Interstate Commerce Commission has advised Chairman Wheeler of the Senate committee on interstate commerce that, while not advocating the measure, it has no objection to S. J. Resolution 99, which proposes an investigation by the commission of interterritorial freight rates and the amendment of Section 3 (1) of the Interstate Commerce Act.

Senator Mapes, Republican of Michigan, has introduced in the House H. R. 5500,

a bill similar to Senator Minton's S. 1512, which would remove from the Interstate Commerce Commission's jurisdiction those motor carriers operating within a single state. However, power would be retained by the commission as to joint through rates and proportional rates.

President Roosevelt has signed the Government Reorganization bill which specifically exempts the Interstate Commerce Commission from the powers of the President to merge the activities of various bureaus and agencies of the government.

Representative William Lemke, Republican of North Dakota, has introduced in the House a bill to carry into effect the Hastings' plan for the postalization of railroad rates. In an explanatory statement, Mr. Lemke says that "This bill in no way conflicts with the Resolution previously introduced by Senator Burton K. Wheeler and myself at the suggestion of the Interstate Commerce Commission directing the commission by congressional mandate to make a thorough and complete study of this plan."

The North Dakotan went on to say that he had discussed the subject of postalized fares, rates and charges of railroad transportation frequently with many members of both the Senate and the House and had found that "they are deeply interested in the subject." "I have never heard," he said, "one valid or substantial criticism against the feasibility of this Plan."

## House Committee Advised on Retirement Act Amendments

The Railroad Retirement Board has advised the House committee on interstate and foreign commerce that enactment of proposed legislation now pending in the House to liberalize the Railroad Retirement Act would cost millions of dollars, at a time when the Board's obligations are running well in excess of its original estimates. This information was contained in a report submitted to the House committee by the Board on the various measures now awaiting action before the committee. The report said that the estimated expenditures for the fiscal years 1937 and 1938, made when the Railroad Retirement Act of 1937 was under consideration, totaled $69,140,000 and for the fiscal year 1938, $64,214,000.

"The actual obligated payments," the report added, "to the end of the fiscal year 1938 totaled $82,994,286 or almost 20 per cent higher than the initial estimate. The obligation during the current fiscal year will be approximately $100,000,000, or 56 per cent higher than the estimate."

The report went on to say that "The Board feels that it should point out specifically in this connection what is implicit in what has already been said about the disbursements for benefits under the current act—that retirements have been taking place more rapidly than anticipated. This has come about to a considerable degree because of the fact that within a few months after the 1937 act became effective, employment declined seriously in the industry; and there was considerable short-time work by those who remained in employment, with the result that the annuities compared very favorably with the amounts which could be earned from active service. The accelerated rate of retirement has coincided with a reduction in income from the Carriers Taxing Act because of the lower employment.

"On the assumption that appropriations to the railroad retirement account are to be offset by equal amounts of taxes collected from employers under the Railroad Retirement Act and their employees, these tax rates would have to be increased if existing conditions continued, first, for the larger payments which would have to be made and second, because the decline in payrolls means that to raise even the same amount of funds the tax rate itself must be increased.

"Because of the relatively short time in which the 1937 act has been operating, the Board is not prepared to indicate the extent by which the present appropriations to the railroad retirement account are deficient. It seems reasonable to suppose that, with a return to reasonably full employment, retirement may become less attractive than it has been in recent months. Moreover, income from the Carriers Taxing Act will presumably rise, because of the initial heavier load. However, even if the original assumptions on which cost estimates were based should be followed within the near future, additional appropriations to the account would ultimately have to be made because the anticipated interest earnings will not, in fact, be secured."

A list of the bills now pending before the House committee and the Board's estimate of their added cost follows:

| | | Annually |
|---|---|---|
| H. R. 285, | giving credit for military service, | $500,000 |
| | giving credit for time lost while in employment relation on account of sickness or disability, not caused by misconduct, | $1,250,000 |
| | giving credit for time lost while on furlough or because of injury sustained in the service, not caused by misconduct, | $3,750,000 |
| | reduction in the service requirement for disability retirement from 30 to 25 years, | $3,000,000 |
| | Total | $8,500,000 |
| H. R. 2004, | giving credit for military service, | $500,000 |
| H. R. 2298, | making retirement compulsory at age of 65 with the possibility of extension to age 70, | $102,000,000 |
| H. R. 2313, | eliminating the reductions in annuities under subparagraphs (a) and (b) of paragraph 2 of subsection (a) of section 2, | $129,000,000 |
| H. R. 2966, | giving credit for military service, | $500,000 |
| H. R. 3651, | giving credit for military service, | $500,000 |
| H. R. 3750, | apparently intended to give retroactive effect to the Railroad Retirement Act. Cost not estimated because of impossibility of determining precisely what was intended to be accomplished. | |
| H. R. 3754, | providing for minimum pension or annuity of $40 per month, | $1,000,000,000 |
| H. R. 4089, | reducing service requirements for retirement because of permanent and total disability from 30 to 20 years, | $5,200,000 |
| H. R. 4318, | paying annuities and pensions for the month in which death occurs, | $1,000,000 |
| H. R. 4323, | giving credit for military service, | $500,000 |

## Charges for Protective Service to Perishable Freight

Examiner F. L. Sharp has recommended in a proposed report that the Interstate Commerce Commission make 10 findings in connection with the further hearing in No. 20,769, Charges for Protective Service to Perishable Freight. The recommended findings are as follows:

1. That no line-haul rate prescribed by the Commission since February 28, 1920, for application on any commodity, included or includes any amount to reimburse the carriers for any part of the cost of refrigeration service and that, with the modifications indicated herein, the so-called section 4 charges found reasonable in the first report in this proceeding should be required to be established and maintained.

2. That shipments of beer with ice in the bunkers or bodies of the cars are subject to the charges of 0.75 mill per ton-mile for ice haulage and 35 cents per car per trip for station and auditors accounting found reasonable in the first report in this proceeding.

3. That the charges for supervision found reasonable in the first report in the proceeding, namely 82 cents per icing in the territory west of the Mississippi River, 97 cents per icing in the territory east of the Mississippi River and north of the Ohio River and the southern boundaries of Virginia and West Virginia, and 69 cents per icing in the territory east of the Mississippi River and south of the Ohio River and the southern boundaries of Virginia and West Virginia, are reasonable for application on shipments of bananas.

4. That the charge of 35 cents per car per trip found reasonable for station and auditors accounting in the first report in this proceeding is reasonable for application on shipments of bananas.

5. That for the future a switching charge of 50.5 cents per car per icing will be a reasonable charge for application to shipments of bananas at stations in Louisiana east of the Mississippi, Alabama, Tennessee, and Kentucky, and that the record on further hearing does not warrant excepting Galveston, Texas, and Bluford, Ill., from the 80-cent charge found reasonable in the first report in this proceeding for the territory in which those points are situated.

6. That for the future a charge of 90 cents per car per trip will be a reasonable charge for bunker repairs to carrier owned or controlled cars loaded with bananas under refrigeration. The Commission should further find that the carriers may forego the establishment of any charge for bunker repairs in connection with shipments of bananas or any other traffic in so far as such action is necessary to enable them to keep their cars in use.

7. That for the future a charge of $4.55 per ton, including provisions for a reasonable return upon the investment in icing facilities and working capital and for depreciation and taxes, will be a reasonable charge for ice placed in the bunkers of refrigerator cars at stations in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

8. That carriers serving Mobile, Ala., may increase the charge for ice at Mobile to an amount not exceeding the charge found reasonable in the first report in this proceeding for ice at New Orleans, La.

9. That instead of the switching charge of 80 cents per car per icing found reasonable for application at stations in Arizona, California, Nevada, and Oregon on lines other than the lines of the Southern Pacific, Union Pacific, Western Pacific, and Santa Fe systems, the carriers concerned may charge 45 cents per car per icing.

10. That in the absence of a sufficient showing to the contrary upon the service of this report, the Commission should modify its order herein of June 2, 1936, so as to require that bills for ice and salt supplied and for all services performed by intermediate and delivering carriers shall be rendered by such intermediate and delivering carriers, upon the basis of the charges found reasonable in this proceeding, to the carrier to which the refrigeration revenue is credited and that such bills shall be paid by the carrier to which the refrigeration revenue is credited, but omit the requirement that these provisions shall be established in accordance with the provisions of section 6 of the Interstate Commerce Act.

The further hearing in the case came about as a result of the court order obtained by certain shippers of fresh meats, packinghouse products, dairy products and beer, staying railroads from applying upon the petitioners' traffic certain of the refrigeration charges required by the order accompanying the commission's original re-

port to become effective September 10, 1936. The charges assailed were those published for application to traffic which moves under section 4 of the so-called Perishable Protective Tariff. Because the effect of the court order was to leave those charges applicable on perishable traffic of all shippers except the petitioners over all railroads, and upon the traffic of petitioners over railroads not made defendants in the case, the commission vacated its abovementioned order insofar as it required application of the section 4 charges on any traffic, and reopened the proceeding.

## Wheeler Submits Holding Co. Bill

(*Continued from page 623*)

Other provisions of the bill authorize the commission to regulate agreements or transactions between railroads and holding companies, to supervise the issuance of holding company securities, to pass on reorganization plans of holding companies, and to regulate their activities in other ways.

The Senators' statement goes on to say that "another section of this bill makes certain changes in the provisions of the Interstate Commerce Act relating to railroad consolidations. The major change is the elimination of the requirement that future consolidations must conform to the consolidation plan heretofore promulgated by the Interstate Commerce Commission." It is explained that this modification was recommended by the Splawn-Eastman-Mahaffie committee last year and was also requested by the President's Committee-of-Six in their recent report on the transportation situation.

Other provisions of the bill include the following:

(1) A requirement that the owners of large amounts of voting stocks of any railroad (one per cent or more of the outstanding voting stock, or $500,000 or more, based on par or market value, of voting stock) report their ownership to the Interstate Commerce Commission;

(2) A prohibition against the establishment of new railroad holding companies;

(3) Improvements in the procedure for judicial review of the actions of the commission with respect to railroad consolidation and holding company activities;

(4) A provision directing the commission to investigate and report to Congress on the carrier operations of industrial, mining, agricultural, and commercial enterprises.

"The need for legislation of the type embodied in this bill," in the opinion of the two Senators, "has been amply demonstrated by the hearings and reports of the subcommittee of the Senate committee on interstate commerce, and by the Interstate Commerce Commission and of the House committee on interstate and foreign commerce."

As reported elsewhere in this issue, Senator Wheeler began hearings before the Senate interstate commerce committee on this bill and other railroad bills recently introduced by him and Senator Truman on April 3.

# Equipment and Supplies

## Quarterly Totals Double Last Year's

### Total of 3,007 freight cars triple 1938's record; locos. and passenger cars up 100 p. c.

A total of 63 locomotives, 1,000 freight cars and 60 passenger-train cars were placed on order during March from American equipment houses for domestic service. The totals in equipment purchases for the first quarter of the year are thereby brought to 74 locomotives, 3,007 freight cars and 107 passenger-train cars. As compared with a total of 36 locomotives, 816 freight cars and 51 passenger train cars ordered during the corresponding quarter of 1938, locomotives and passenger equipment show more than 100 per cent increases, respectively, while freight cars demonstrate a more than 200 per cent improvement.

In addition to the locomotives purchased during the month an order for 11 locomotive tenders was also placed. The export field brought an order for two steam locomotives. Canadian roads placed orders for 2,075 freight cars and 15 passenger-train cars with Canadian builders and company shops during the month, representing the first orders so placed in Canada this year.

The carriers ordered 73,651 tons of rail during March, which bring the total purchases for the calendar year thus far to 405,481 tons, or more than three times the 127,465 tons ordered during the corresponding quarter of 1938.

### Machinery and Tools

The Missouri Pacific will spend approximately $110,000 for machinery and tools with which to improve efficiency and reduce operating costs in its car and locomotive shops. Included in the list is a planer and matcher, two 24-in. vertical boring mills, a 30-in. engine lathe, a punch and shear and a machine to process locomotive bolts.

### PASSENGER CARS

SOUTHERN PACIFIC.—The two daylight streamliners which the Southern Pacific has ordered from the Pullman-Standard Car Manufacturing Company, as reported in the *Railway Age* of April 1, will each contain a three-car articulated dining unit made up of a full length kitchen car in the center, a main dining room, and a full length coffee shop car. The diner will seat 72 persons, as compared with the 40 that can be seated in the present diner-kitchen car, and the new coffee shop car will seat 80, as compared with 56 in the present coffee shop-kitchen car. This is to be the first dining unit of its type in America. Other refinements include a new type of luggage compartment in each chair and parlor car, with an outside door through which baggage may be loaded and unloaded at terminals without congesting the vestibules. Shelves in the new compartments will be operated electrically on an elevator principle to bring any shelf to the level of the outside door for easy access. Although outside appearance of the train and interior appointments, such as sponge-rubber seats, will follow the design of the present trains, additional roominess will be provided by increasing the length of cars from 79 ft. 2 in. to 81 ft.

### LOCOMOTIVES

THE WABASH has been authorized by the federal district court to purchase four Diesel-electric switching locomotives at a cost of $250,000. Inquiry for this equipment was reported in the *Railway Age* of March 11, page 444.

### FREIGHT CARS

THE UNITED CARBON COMPANY has ordered from the American Car & Foundry Co., 10 covered hopper cars of 40 tons' capacity. These cars are to be used in transportation of carbon black in bulk.

## Domestic Equipment Orders Reported in Issues of The Railway Age in March, 1939 (Including April 1)

| Date | Name of Company | No. | Type | |
|---|---|---|---|---|
| | **LOCOMOTIVES** | | | |
| Mar. 4 | Union Pacific | 15 | 4-8-4 | American Locomotive Co. |
| Mar. 4 | Southern Pacific | 28 | 4-8-8-2 | Baldwin Locomotive Works |
| | | 12 | 2-8-8-4 | Lima Locomotive Works |
| Mar. 11 | Chicago, Milwaukee | 4 | Diesel-electric | Electro-Motive Corp. |
| | St. Paul & Pacific (leased) | 2 | Diesel-electric | American Locomotive Co. |
| Mar. 18 | Chicago, Rock Island & Pacific | 2 | Diesel-electric | Electro-Motive Corp. |
| | **FREIGHT CARS** | | | |
| Mar. 4 | Lehigh & New England | 100 | Cov. Hopper | Bethlehem Steel Co. |
| Mar. 18 | John Morrell & Co. | 100 | Refrigerator | General American |
| Mar. 25 | Lehigh Valley | 500 | Hopper | Bethlehem Steel Co. |
| Apr. 1 | Union Pacific | 300 | Flat | Company Shops |
| | **PASSENGER-TRAIN CARS** | | | |
| Mar. 18 | Lehigh Valley | 10 | Coaches | Pullman-Standard |
| Mar. 18 | Delaware & Hudson | 6 | Coaches | American Car & Foundry |
| Mar. 18 | Chicago, Rock Island & Pacific | 8 | Coaches | Edward G. Budd Mfg. Co. |
| | | 2 | Dining | Edward G. Budd Mfg. Co. |
| | | 4 | Sleeping | Pullman-Standard |
| | | 2 | Observation | Pullman-Standard |
| Apr. 1 | Southern Pacific | 28 | | Pullman-Standard |

## IRON AND STEEL

THE CHICAGO & NORTH WESTERN has ordered 9,600 tons of rails, placing 6,700 tons with the Carnegie-Illinois Steel Corporation, and 2,900 tons with the Inland Steel Company. A total of 3,000 tons of rails was also ordered for the Chicago, St. Paul, Minneapolis & Omaha from the Bethlehem Steel Company.

## SIGNALING

TOLEDO, PEORIA & WESTERN.—Sealed proposals will be received at the office of the purchasing agent, Union Station, Peoria, Ill., until 2:00 p. m., (c. s. t.) April 17, for furnishing miscellaneous signal material to be used in connection with a federal aid grade crossing protection project in the State of Illinois.

# Supply Trade

**B. D. Landes** has been appointed general sales manager of the **H. K. Porter Company,** Pittsburgh, Pa. Mr. Landes was formerly manager of engineering service of the A. M. Byers Company, Pittsburgh.

Stockholders of the **Inland Steel Company** have approved a plan to acquire the **Wilson & Bennett Manufacturing Company,** Chicago, through the exchange of 45,000 shares of Inland stock for all of the issued shares of Wilson & Bennett.

**George V. Christie,** vice-president in charge of sales of Waldvogel Brothers, Inc., New York, has resigned to become representative of the **Gustin-Bacon Manufacturing Company,** Kansas City, Mo., with headquarters in New York.

**David Dasso** has resigned his position as vice-president of the **American Locomotive Company, Diesel Engine Division,** effective April 1. He will be retained in a consulting capacity by the Locomotive Company and will also continue in the position of United States representative of **Sulzer Brothers, Ltd.,** Winterthur, Switzerland.

**The Consolidated Car-Heating Company, Inc.,** Albany, N. Y., has elected new officers following the death of President Cornell S. Hawley. **William S. Hammond,** vice-president since 1912, and for 37 years connected with the company, is now president; **John H. McElroy,** secretary since 1917, and **G. E. Oakley,** for many years with the company, are vice-presidents; **Frank M. Roos,** purchasing agent and office manager, who has been with the company since 1910, is secretary and **E. D. Ludlum,** assistant treasurer, is treasurer.

**Ervin J. Sanne,** district sales manager of the **Inland Steel Company,** with headquarters at St. Paul, Minn., has been promoted to assistant manager of sales of the **Sheet and Strip Steel division,** with headquarters at Chicago, and has been succeeded by **Frederick A. Ernst,** assistant district sales manager at St. Louis, Mo.

**Ervin J. Sanne**

**Harry A. Johnson** of the St. Paul office has been promoted to assistant district sales manager at St. Paul. The appointments of Mr. Sanne and Mr. Ernst become effective May 1, and the appointment of Mr. Johnson is effective at once. Mr. Sanne has been district sales manager of the Inland Steel Company at St. Paul since 1936. Prior to that time he was associated with Joseph T. Ryerson & Son, Inc., now a subsidiary of the Inland Steel Company, having entered the employ of that company in 1917. He was active in the sales department at Chicago from 1921 to 1936.

**Frederick A. Ernst**

Mr. Ernst has been assistant district sales manager of the Inland Steel Company at St. Louis since 1936. He entered the steel industry in 1914 with the Trumbull Steel Company and was successively affiliated with the Falcon Steel Company, the Granite City Steel Company and the Columbia Steel Company, prior to his association with the Inland Steel Company at St. Louis in 1928.

**The Pyle National Company,** Chicago, has secured an exclusive license from the **Burgess Battery Company,** Madison, Wis., for the engineering, manufacture and sale of its Multi-vent system of draftless ventilation for application to transportation equipment. **Edward A. Sipp** has returned to the Pyle-National Company as vice-president in charge of the Multi-vent division, after having spent the last three years in engineering and development work in connection with this system.

**Robert C. Stanley** has been elected a director of the **United States Steel Corporation** and a member of the finance committee succeeding **Walter S. Gifford. W. A. Irvin,** in accord with his expressed intention of last year, and after 44 years of service with the corporation, has retired from the office of vice-chairman of the board, which has been abolished. Mr. Irvin will continue as a member of the board of directors and finance committee.

## OBITUARY

**T. S. Grubbs,** vice-president of the Union Switch & Signal Co., died on April 2, after a prolonged illness. Mr. Grubbs was born in old Allegheny City, now North Side, Pittsburgh, Pa., on February 27, 1873. In 1888 he became clerk with the old Westinghouse Machine Company and since that time he was continuously identified with Westinghouse interests. In 1915, the activities of the Westinghouse Machine Company were merged with the Westinghouse Electric & Manufacturing Company and at the time of this merger, Mr. Grubbs was secretary and auditor. On February 2, 1915, he was elected secretary of the Union Switch & Signal Co., and in April, 1918, he was also elected treasurer, which positions he held until April 1, 1919, when he was elected vice-president, secretary and treasurer. On October 1, 1927, he was also elected comptroller of the Westinghouse Air Brake and subsidiary companies. Mr. Grubbs retained these positions until, at his request, he relinquished the offices of secretary and treasurer of the Union Switch & Signal Co., and comptroller for the Westinghouse Air Brake and subsidiaries, effective November 1, 1938. Mr. Grubbs was also director of the First National Bank of Swissvale, Pa.

Blank & Stoller

**T. S. Grubbs**

# Financial

AKRON, CANTON & YOUNGSTOWN.—*Annual Report.*—The 1938 annual report of this road and its subsidiary, the Northern Ohio, shows net deficit after interest and other charges, of $244,968, as compared with net deficit of $13,620 in 1937. Selected items from the income account follow:

| | 1938 | 1937 | Increase or Decrease |
|---|---|---|---|
| RAILWAY OPERATING REVENUES | $1,694,439 | $2,122,095 | −$427,656 |
| Maintenance of way | 259,816 | 325,466 | −65,649 |
| Maintenance of equipment | 170,163 | 216,586 | −46,423 |
| Transportation | 591,049 | 679,906 | −88,856 |
| TOTAL OPERATING EXPENSES | 1,281,922 | 1,470,061 | −188,139 |
| Operating ratio | 75.60 | 68.77 | +6.83 |
| NET REVENUE FROM OPERATIONS | 413,497 | 662,706 | −249,209 |
| Railway tax accruals | 156,262 | 105,470 | 50,792 |
| Hire of freight cars | 176,428 | 251,850 | −75,422 |
| Joint facility rents | 1,036 | 787 | +248 |
| NET RAILWAY OPERATING INCOME | 81,566 | 306,524 | −224,958 |
| TOTAL INCOME | 124,991 | 360,076 | −235,084 |
| Interest on funded debt | 339,283 | 342,414 | −3,131 |
| TOTAL DEDUCTIONS FROM GROSS INCOME | 369,959 | 373,696 | −3,736 |
| NET INCOME (Deficit) | $244,968 | −$13,620 | −$231,348 |

ALABAMA & WESTERN FLORIDA.—*Receiver's Certificate.*—The receiver for this road has applied to the Interstate Commerce Commission for authority to issue 18-months, six per cent receiver's certificates in such amount as may be necessary for the payment of taxes to the state of Florida and its subdivisions. The application lists claims of the taxing authorities for amounts aggregating $13,861, including the 1938 levies.

ALABAMA & WESTERN FLORIDA.—*Abandonment.*—The receiver for this road has applied to the Interstate Commerce Commission for authority to abandon operation of its entire 38-mile line, extending from Chipley, Fla., to Southport. The application also seeks authority to abandon the 19.25-mi. segment between Chipley and Greenhead, which is owned by A. & W. F. itself; operations on the remaining 18.75-mi. segment between Greenhead and Southport have been over tracks owned by the Sale-Davis Company.

ALTON.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon the portion of a line extending from Bakersfield Junction, Ill., to its terminus, 2.8 miles.

BINGHAM & GARFIELD.—*Notes.*—This company has asked the Interstate Commerce Commission for authority to issue $1,000,000 of 10-year notes to be delivered to the Kennecott Copper Company, which owns all the capital stock of the railroad.

BANGOR & AROOSTOOK.—*Annual Report.*—The 1938 annual report of this road shows net income, after interest and other charges, of $238,969, as compared with net income of $845,224 in 1937. Selected items from the income account follow:

| | 1938 | Increase or Decrease Compared with 1937 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $5,615,878 | −$569,798 |
| Maintenance of way | 1,151,238 | +70,074 |
| Maintenance of equipment | 1,066,567 | −15,481 |
| Transportation | 1,534,587 | −18,727 |
| TOTAL OPERATING EXPENSES | 4,135,508 | +34,947 |
| Operating ratio | 73.64 | +7.35 |
| NET REVENUE FROM OPERATIONS | 1,480,369 | −604,746 |
| Railway tax accruals | 565,355 | +17,651 |
| Railway operating income | 915,014 | −622,396 |
| Equipment and joint facility rents—Dr. | 18,158 | −17,677 |
| NET RAILWAY OPERATING INCOME | 974,778 | −536,872 |
| Other income | 43,885 | −26,142 |
| TOTAL INCOME | 1,018,664 | −563,014 |
| Interest on funded debt | 744,885 | +33,743 |
| TOTAL FIXED CHARGES | 762,843 | +38,632 |
| NET INCOME | $238,969 | −$606,255 |

BOSTON & MAINE.—*Annual Report.*—The 1938 annual report of this road shows net deficit, after interest and other charges, of $5,099,626, as compared with net income of $202,220 in 1937. Selected items from the income account follow:

| | 1938 | Increase or Decrease Compared with 1937 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $40,193,026 | −$6,179,666 |
| Maintenance of way | 6,390,631 | +202,519 |
| Maintenance of equipment | 6,168,922 | −1,069,685 |
| Transportation | 17,550,013 | −717,756 |
| TOTAL OPERATING EXPENSES | 32,754,834 | −1,859,270 |
| Operating ratio | 81.49 | +6.84 |
| NET REVENUE FROM OPERATIONS | 7,438,192 | −4,320,396 |
| Railway tax accruals | 3,708,285 | +854,164 |
| Railway operating income | 3,729,907 | −5,174,561 |
| Net Rents | 2,475,740 | +120,141 |
| NET RAILWAY OPERATING INCOME | 1,254,166 | −5,294,702 |
| Other income | 1,177,254 | −22,950 |
| TOTAL INCOME | 2,431,421 | −5,317,653 |
| Rent for leased roads | 1,243,145 | −101 |
| Interest on funded debt | 5,444,303 | −110,973 |
| TOTAL FIXED CHARGES | 7,428,554 | −52,692 |
| NET INCOME (Deficit) | $5,099,626 | −$5,301,847 |

CHICAGO GREAT WESTERN.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon 2.9 miles of line in the city limits of Winona, Minn.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Note.*—This company has asked the Interstate Commerce Commission for authority to issue a promissory note to the Continental Illinois National Bank & Trust Co. of Chicago for $1,184,000, payable in eight installments of $148,000 each on June 1, 1939 and each succeeding September, December, March and June thereafter, except the last installment which shall be due and payable on February 27, 1941. The note will bear interest at the rate of two per cent per year.

CANADIAN NATIONAL.—*Annual Report.*—The 1938 annual report of this system, shows net deficit, after interest and other charges, of $54,470,996, as compared with net deficit of $42,028,654 in 1937. Selected items from the consolidated income account follow:

| | 1938 | 1937 | Increase or Decrease |
|---|---|---|---|
| RAILWAY OPERATING REVENUES | $182,241,722 | $198,396,608 | −$16,154,886 |
| TOTAL OPERATING EXPENSES | 176,175,311 | 180,788,858 | −4,613,547 |
| NET REVENUE FROM OPERATIONS | 6,066,411 | 17,607,750 | −11,541,339 |
| Railway tax accruals | 5,954,197 | 5,635,173 | +319,024 |
| Railway operating income | 112,213 | 11,972,576 | −11,860,363 |
| Hire of freight cars—Dr. | 1,403,976 | 1,869,236 | −465,260 |
| Joint facility rents—Net | 918,155 | 560,735 | +357,420 |
| NET RAILWAY OPERATING INCOME | *2,133,039 | 9,509,400 | −11,642,429 |
| INCOME AVAILABLE FOR FIXED CHARGES | *1,019,255 | 11,241,762 | −12,261,017 |
| Rent for leased roads and equipment | 1,474,675 | 1,505,688 | −31,013 |
| Interest on funded debt—Public | 49,839,022 | 48,888,545 | +950,477 |
| TOTAL FIXED CHARGES | 53,451,741 | 53,270,417 | +181,324 |
| NET DEFICIT | $54,470,996 | $42,028,654 | +$12,442,342 |

*Deficit.

DELAWARE & HUDSON.—*Annual Report.*—The 1938 annual report of this road shows net deficit, after interest and other charges, of $156,204 as compared with net deficit of $998,164 in 1937. Selected items from the income account follow:

| | 1938 | Increase or Decrease Compared with 1937 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $21,213,506 | −$4,021,222 |
| TOTAL OPERATING EXPENSES | 15,988,944 | −4,909,191 |
| Operating ratio | 75.37 | −7.44 |
| NET REVENUE FROM OPERATIONS | 5,224,561 | +887,969 |
| Railway tax accruals | 1,620,048 | +180,997 |
| Railway operating income | 3,604,513 | +706,971 |
| Hire of freight cars—Net | *27,020 | +37,631 |
| Joint facility rents—Net | 121,418 | −6,538 |
| NET RAILWAY OPERATING INCOME | 3,513,990 | +726,097 |
| Other income | 221,360 | +15,050 |
| TOTAL INCOME | 3,735,350 | +741,148 |
| Rent for leased roads | 1,786,261 | ..... |
| Interest on funded debt | 2,005,000 | −137,500 |
| TOTAL FIXED CHARGES | 3,866,992 | −106,338 |
| NET DEFICIT | $156,204 | −$841,959 |

*Credit.

ERIE.—*Annual Report.*—The 1938 annual report of this company shows net deficit, after interest and other charges, of $10,777,793, as compared with net deficit of $433,293 in 1937. Selected items from the income account follow:

| | 1938 | Increase or Decrease Compared with 1937 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $69,509,060 | —$14,416,665 |
| Maintenance of way | 7,390,938 | +208,467 |
| Maintenance of equipment | 14,910,438 | —1,732,922 |
| Transportation | 28,738,732 | —2,964,868 |
| TOTAL OPERATING EXPENSES | 56,103,281 | —4,894,522 |
| Operating ratio | 80.71 | +8.03 |
| NET REVENUE FROM OPERATIONS | 13,405,778 | —9,522,143 |
| Railway tax accruals | 6,800,470 | +1,283,890 |
| Railway operating income | 6,605,308 | —10,806,034 |
| Net rents—Dr. | 3,390,979 | —403,354 |
| NET RAILWAY OPERATING INCOME | 3,214,328 | —10,399,679 |
| Other income | 1,009,076 | —176,969 |
| TOTAL INCOME | 4,223,405 | —10,576,649 |
| Rent for leased roads | 1,991,249 | +2,895 |
| Interest on funded debt | 11,340,830 | —851,464 |
| TOTAL FIXED CHARGES | 14,373,741 | —177,868 |
| NET DEFICIT | $10,777,793 | +$10,344,500 |

ERIE.—*Disaffirmance of N. J. Northern Lease.*—Special Master W. L. West appointed by the U. S. district court at Cleveland, Ohio, has approved a proposal of the trustees of the Erie to disaffirm its lease agreement with the 26-mile Northern of New Jersey. The approval order, dated April 1, provides that the Erie must continue operation of the line for only 60 days after issuance, but it is reported that the lessee will continue operation after that date, as the Northern owns no equipment or terminal facilities. In effect, after June 1 the Erie will operate the line (chiefly a commuters' and local freight road) to the account of the owner, deficits to be charged against the Northern. At the same time the Erie will be relieved of the lease obligation to pay a rental consisting of interest on capital stock and bonds, taxes and assessments amounting to about $80,000 annually. However, the former lessee must meet back-payments due to date.

INDIANA HARBOR BELT.—*Annual Report.*—The annual report of this company for the year ended December 31, 1938, shows net income, after interest and other charges of $881,834, as compared with net income of $1,263,211 in 1937. Selected items from the income account follow:

| | 1938 | 1937 | Increase or Decrease |
|---|---|---|---|
| Average mileage operated | 124.27 | 124.23 | .04 |
| RAILWAY OPERATING REVENUES | $9,065,486 | $10,395,195 | —$1,329,709 |
| TOTAL OPERATING EXPENSES | 6,024,923 | 6,779,251 | —754,328 |
| Operating ratio | 66.46 | 65.22 | +1.24 |
| NET REVENUE FROM OPERATIONS | 3,040,563 | 3,615,944 | —575,380 |
| Railway tax accruals | 813,693 | 811,395 | +2,297 |
| Railway operating income | 2,226,870 | 2,804,548 | —577,678 |
| Equipment rents—Net Dr. | 499,308 | 776,227 | —276,918 |
| Joint facility rents—Net Dr. | 408,955 | 318,778 | +90,176 |
| NET RAILWAY OPERATING INCOME | 1,318,606 | 1,709,542 | —390,936 |
| Other income | 44,789 | 40,264 | +4,525 |
| TOTAL INCOME | 1,363,396 | 1,749,807 | —386,410 |
| Rent for leased roads and equipment | 38,326 | 37,876 | +449 |
| Interest on funded debt | 397,020 | 401,270 | —4,250 |
| TOTAL FIXED CHARGES | 445,016 | 449,223 | —4,206 |
| NET INCOME | $881,834 | $1,263,211 | —381,376 |

LONG ISLAND. — *Abandonment.* — This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon its Sag Harbor branch, extending northerly from a connection with its Montauk division, at Bridgehampton, N. Y., to Sag Harbor, 4.4 miles.

MIDLAND VALLEY. — *Amendment to Mortgage.*—This road has applied to the Interstate Commerce Commission for authority to amend the terms of its adjustment mortgage of April 2, 1913, and its Series A and Series B bonds secured thereby. The stated purpose of the application is to cure a situation wherein the applicant is so tied in connection with the 1943 maturity of its first mortgage as to be unable either to refund it or extend it without precipitating the maturity of the Series A and B adjustment bonds which otherwise mature April 1, 1953.

MOBILE & OHIO.—*Annual Report.*—The 1938 annual report of this company shows net deficit, after interest and other charges, of $558,345, as compared with net deficit of $647,438 in 1937. Selected items from the income statement follow:

| | 1938* | 1937* | Increase or Decrease |
|---|---|---|---|
| RAILWAY OPERATING REVENUES | $11,447,872 | $12,104,794 | —$656,922 |
| Maintenance of way | 1,435,326 | 1,568,730 | —133,404 |
| Maintenance of equipment | 2,060,973 | 2,625,238 | —564,265 |
| Transportation | 4,317,727 | 4,424,010 | —106,283 |
| TOTAL OPERATING EXPENSES | 8,854,741 | 9,702,025 | —847,284 |
| Operating ratio | 77.35 | 80.15 | —2.80 |
| NET REVENUE FROM OPERATIONS | 2,593,130 | 2,402,768 | +190,362 |
| Railway tax accruals | 741,577 | 674,320 | +67,257 |
| Hire of equipment | 515,919 | 415,052 | +100,867 |
| Joint facility rents | 371,447 | 382,936 | —11,489 |
| NET RAILWAY OPERATING INCOME | 964,186 | 930,460 | +33,726 |
| Other income | 59,917 | 56,899 | +3,018 |
| TOTAL INCOME | 1,024,104 | 987,360 | +36,744 |
| Rent for leased roads | 1,568 | 1,418 | +150 |
| TOTAL FIXED CHARGES | 1,572 509 | 1,624,678 | —52,169 |
| NET DEFICIT | $558,345 | $647,438 | —$89,093 |

*Combined corporate and receivers' accounts.

NEW YORK, CHICAGO & ST. LOUIS.—*Annual Report.*—The preliminary report of this road for the year ended December 31, 1938, shows net deficit, after interest and other charges, of $1,059,503, as compared with net income of $2,655,561 in 1937. Selected items from the income statement follow:

| | 1938 | Increase or Decrease Compared with 1937 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $36,381,231 | —$5,231,034 |
| Maintenance of way | 3,682,275 | —897,062 |
| Maintenance of equipment* | 5,720,042 | —754,141 |
| Transportation | 13,713,714 | —683,297 |
| TOTAL OPERATING EXPENSES | 26,025,858 | —2,369,623 |
| Operating ratio | 71.54 | +3.30 |
| NET REVENUE FROM OPERATIONS | 10,355,373 | —2,861,411 |
| Railway tax accruals | 2,263,116 | —101,112 |
| Railway operating income | 8,092,256 | —2,760,299 |
| Equipment rents—Net | 2,582,724 | +159,761 |
| Joint facility rents—Net | 451,399 | —1,894 |
| NET RAILWAY OPERATING INCOME | 5,058,132 | —2,602,431 |
| Other income | 490,813 | —18,190 |
| TOTAL INCOME | 6,205,657 | —3,890,925 |
| Rent for leased roads and equipment | 3,531 | ..... |
| Interest on debt | 7,196,861 | —159,962 |
| NET INCOME | †$1,059,503 | —$3,715,064 |

*Includes Depreciation.
†Deficit.

NEW YORK, ONTARIO & WESTERN.—*Annual Report.*—The 1938 annual report of this company shows net deficit, after interest and other charges, of $1,994,314, as compared with net deficit of $1,675,286 in 1937. Selected items from the income account follow:

| | 1938 | 1937 | Increase or Decrease |
|---|---|---|---|
| RAILWAY OPERATING REVENUES | $6,439,655 | $6,480,030 | —$40,375 |
| Maintenance of way | 808,653 | 754,128 | +54,525 |
| Maintenance of equipment | 1,572,836 | 1,508,145 | +64,691 |
| Transportation—Rail | 3,126,786 | 3,127,410 | —624 |
| TOTAL OPERATING EXPENSES | 5,974,156 | 5,799,171 | +174,985 |
| Operating ratio | 92.77 | 89.49 | +3.28 |
| NET REVENUE FROM OPERATIONS | 465,498 | 680,858 | —215,360 |
| Railway tax accruals | 613,320 | 447,420 | +165,900 |
| Railway operating income | *147,821 | 233,438 | —381,259 |
| Hire of freight cars—Dr. | 325,309 | 294,204 | +31,105 |
| Joint facility rents—Net | 81,294 | 86,691 | —5,397 |
| NET RAILWAY OPERATING DEFICIT | 599,496 | 174,816 | +414,680 |
| Other income | 22,729 | 48,586 | —25,857 |
| GROSS DEFICIT | 576,766 | 126,229 | +450,537 |
| Rent for leased roads and equipment | 111,735 | 234,281 | —122,546 |
| Interest on funded debt | 1,230,814 | 1,241,096 | —11,282 |
| TOTAL DEDUCTIONS FROM GROSS INCOME | 1,417,547 | 1,549,056 | —131,509 |
| NET DEFICIT | $1,994,314 | $1,675,286 | +$319,028 |

*Deficit.

NEW YORK, ONTARIO & WESTERN.—*Reorganization Hearing Postponed.*—The Interstate Commerce Commission has postponed from April 18, to September 19, the

date for public hearings on a plan of reorganization for this company. The hearing will be held before Examiner Jewell.

MINNEAPOLIS & ST. LOUIS.—*Abandonment.*—The application of this company for authority to abandon a line extending from Lynnville Junction, Iowa, to Lynnville, has been dismissed by Division 4 of the Interstate Commerce Commission on stipulation of the parties.

PEORIA & PEKIN UNION.—*Annual Report.*—The 1938 annual report of this railway shows net income, after interest and other charges, of $26,414, a decrease of $18,753 as compared with the 1937 figure. Selected items from the income statement follow:

| | 1938 | Increase or Decrease Compared with 1937 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $1,008,850 | —$122,945 |
| Maintenance of way | 115,487 | —20,755 |
| Maintenance of equipment | 113,190 | —4,220 |
| Transportation | 502,481 | —53,897 |
| TOTAL OPERATING EXPENSES | 855,203 | —83,476 |
| NET REVENUE FROM OPERATIONS | 153,646 | —39,468 |
| Railway tax accruals | 160,550 | —3,670 |
| Railway operating income | *6,904 | —35,798 |
| Net rents | 187,101 | +17,704 |
| NET RAILWAY OPERATING INCOME | 180,196 | —18,093 |
| Other income | 21,039 | —1,009 |
| LESS DEDUCTIONS FROM INCOME (including taxes and fixed charges) | 349,794 | —30,244 |
| NET INCOME | $26,414 | —$18,753 |

*Deficit.

PERE MARQUETTE.—*Annual Report.*—The condensed annual report of this road for the year ended December 31, 1938, shows net deficit, after interest and other charges, of $2,259,803, as compared with a net income of $1,669,858 in 1937. Selected items from the income account follow:

| | 1938 | Increase or Decrease Compared with 1937 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $25,444,601 | —$6,784,507 |
| Maintenance of way | 3,628,610 | —684,533 |
| Maintenance of equipment | 5,687,011 | —1,173,135 |
| Transportation | 10,266,650 | —1,495,75 |
| TOTAL OPERATING EXPENSES | 21,487,335 | —3,442,449 |
| Operating ratio | 84.45 | +7.10 |
| NET REVENUE FROM OPERATIONS | 3,957,266 | —3,342,058 |
| Railway tax accruals | 1,806,325 | +161,819 |
| Railway operating income | 2,150,940 | —3,503,878 |
| Equipment rents—Net | 773,885 | —164,904 |
| Joint facility rents—Net | 523,452 | +61,339 |
| NET RAILWAY OPERATING INCOME | 853,601 | —3,607,442 |
| Other income | 245,912 | —63,967 |
| TOTAL INCOME | 1,167,599 | —3,902,080 |
| Rent for leased roads and equipment | 71,277 | —3,315 |
| Interest on debt | 3,278,514 | +20,837 |
| NET INCOME | *$2,259,803 | —$3,929,661 |

*Deficit.

RAILWAY EXPRESS AGENCY.—*New Director.*—Edward J. Engel, recently-elected president of the Atchison, Topeka & Santa Fe, was elected a director of the Agency at the annual meeting held in New York April 5, to succeed the late Samuel T. Bledsoe.

RUTLAND.—*Annual Report.*—The 1938 annual report of this company shows net deficit, after interest and other charges of $891,797, an increase of $483,188 over the 1937 deficit. Selected items from the income account follow:

| | 1938 | Increase or Decrease Compared with 1937 |
|---|---|---|
| Average mileage operated | 407.29 | ..... |
| RAILWAY OPERATING REVENUES | $2,955,226 | —$528,408 |
| TOTAL OPERATING EXPENSES | 3,147,714 | —113,845 |
| Operating ratio | 106.51 | +12.88 |
| NET REVENUE FROM OPERATIONS | *192,487 | —414,562 |
| Railway tax accruals | 328,822 | +14,958 |
| Railway operating deficit | 521,310 | +429,521 |
| Equipment rents—Net Dr. | 33,480 | +27,878 |
| Joint facility rents—Net Cr. | 24,114 | —3,188 |
| NET RAILWAY OPERATING INCOME | 530,676 | +460,588 |
| Other income | 50,280 | —24,255 |
| TOTAL INCOME | *480,395 | —484,843 |
| Rent for leased roads and equipment | 15,055 | +49 |
| Interest on funded debt | 391,595 | —1,145 |
| TOTAL FIXED CHARGES | 406,893 | —1,212 |
| NET DEFICIT | $891,797 | +$483,188 |

*Deficit.

ST. LOUIS SOUTHWESTERN OF TEXAS.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon a branch line extending from Lufkin, Tex., to Prestridge, 11 miles.

TEXAS & PACIFIC.—*Annual Report.*—The 1938 annual report of this railway shows net income, after interest and other charges, of $1,421,855, compared with net income of $2,440,626 in 1937. Selected items from the income account follow:

| | 1938 | Increase or Decrease Compared with 1937 |
|---|---|---|
| RAILWAY OPERATING REVENUES | $26,381,704 | —$3,968,367 |
| Maintenance of way | 2,739,467 | —644,556 |
| Maintenance of equipment | 4,689,553 | —898,763 |
| Transportation—Rail | 8,629,052 | —753,914 |
| TOTAL OPERATING EXPENSES | 18,355,177 | —2,568,967 |
| Operating ratio | 69.58 | +0.64 |
| NET REVENUE FROM OPERATIONS | 8,026,527 | —1,399,399 |
| Railway tax accruals | 1,931,129 | —416,555 |
| Railway operating income | 6,095,397 | —982,843 |
| Net rents | 1,323,977 | —242,016 |
| NET RAILWAY OPERATING INCOME | 4,771,419 | —740,827 |
| Other income | 724,063 | —277,085 |
| TOTAL INCOME | 5,495,482 | —1,017,913 |
| Interest on funded debt | 3,930,542 | —10,609 |
| TOTAL FIXED CHARGES | 3,947,250 | —157 |
| NET INCOME | $1,421,855 | —$1,018,770 |

NORTHEAST OKLAHOMA.—*Acquisition.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to purchase the line of the Southwest Missouri extending from Baxter Springs, Kans., to Picher, Okla., together with all the spurs, side tracks, switches, and connections involving 5.6 miles of main line and 4.2 miles of side tracks.

ST. LOUIS SOUTHWESTERN. — *Hearing Postponed.*—The hearing on the allegations of Walter E. Meyer that this company was financially mismanaged while it was under control of the Southern Pacific has been postponed by the Interstate Commerce Commission from April 12 to May 5. The hearing will be held before Commissioner Aitchison in Washington, D. C.

TENNESSEE.—*Bonds.*—The application of this company to issue $200,000 of first mortgage 15-year bonds, series A, has been dismissed by Division 4 of the Interstate Commerce Commission at the company's request.

TENNESSEE CENTRAL.—*Annual Report.*—The 1938 annual report of this company shows net income, after interest and other charges, of $44,691, compared with net income of $120,011 in 1937. Selected items from the income statement follow:

| | 1938 | 1937 | Increase or Decrease |
|---|---|---|---|
| RAILWAY OPERATING REVENUES | $2,279,175 | $2,512,133 | —$232,958 |
| Maintenance of way | 356,123 | 392,618 | —36,495 |
| Maintenance of equipment | 327,129 | 372,161 | —45,032 |
| Transportation | 813,721 | 886,613 | —72,892 |
| TOTAL OPERATING EXPENSES | 1,688,564 | 1,846,309 | —157,745 |
| Operating ratio | 74.09 | 73.50 | +.59 |
| NET REVENUE FROM OPERATIONS | 590,611 | 665,824 | —75,213 |
| Railway tax accruals | 151,089 | 120,190 | +30,899 |
| Railway operating income | 439,522 | 545,633 | —106,111 |
| Hire of freight cars—Dr. | | | |
| Equipment rents | 183,691 | 200,365 | —16,674 |
| Joint facility rents—Net | 6,037 | 5,745 | +292 |
| Other income | 18,182 | 27,539 | —9,357 |
| GROSS INCOME | 457,704 | 573,173 | —115,469 |
| Rent for leased roads and equipment | 2,477 | 17,490 | —15,013 |
| Interest on funded debt | 208,062 | 212,147 | —4,085 |
| TOTAL DEDUCTIONS FROM GROSS INCOME | 413,013 | 453,162 | —40,149 |
| NET INCOME | $44,691 | $120,011 | —$75,320 |

UNION PACIFIC.—*Abandonment.*—This company would be permitted to abandon its Grass Creek branch, extending from Grass Creek Junction, Utah, northeasterly to the end of the track near Grass Creek, 5.6 miles, if the Interstate Commerce Commission adopts the recommendation of its Examiner, R. Romero.

## Dividends Declared

Norwalk & Western.—Preferred, $1.00, quarterly, payable May 19 to holders of record April 29.

Reading.—25¢, quarterly, payable May 11 to holders of record April 13.

## Average Prices of Stocks and Bonds

| | Apr. 4 | Last week | Last year |
|---|---|---|---|
| Average price of 20 representative railway stocks.. | 27.49 | 33.10 | 22.56 |
| Average price of 20 representative railway bonds.. | 59.12 | 61.94 | 55.11 |

# Railway Officers

## EXECUTIVE

**Edward Murrin,** whose appointment as executive secretary of the Association of Western Railways and secretary of the General Managers' Association, with head-

Edward Murrin

quarters at Chicago, was announced in the *Railway Age* of April 1, entered railway service in 1903 as a clerk in the operating department of the Chicago, Burlington & Quincy at Aurora, Ill., and later became successively yard clerk, trainmaster's clerk and chief clerk to the assistant superintendent. In 1908, he was appointed assistant timekeeper on the Aurora division and in 1914, he was promoted to statistical clerk to the assistant to the vice-president at Chicago. In 1915, he was appointed chief timekeeper and accountant on the Aurora division and in 1916, he went with the Association of Western Railways as statistician. During the war he served from December, 1917, to February, 1919, with the Engineer Corps and in March, 1919, he was appointed assistant to the labor director, United States Railroad Administration at Washington, D. C. Mr. Murrin returned to Chicago in June, 1920, as chief examiner, Association of Western Railways and assistant secretary, General Managers' Association. In June, 1936, he was advanced to secretary of the Association of Western Railways and in May, 1938, he was appointed also a member of the Fourth division of the National Railroad Adjustment Board.

## FINANCIAL, LEGAL AND ACCOUNTING

**Mrs. Ina C. Trewin,** secretary to the secretary of the Chicago, Milwaukee, St. Paul & Pacific at Chicago, has been promoted to assistant secretary with the same headquarters, succeeding **A. C. Hagensick,** who retired on April 1.

**Stuart T. Saunders,** member of the law firm of Douglas, Obear & Campbell, Washington, D. C., has been appointed assistant general solicitor of the Norfolk & Western, Roanoke, Va.

**Herbert Coughenour** has been appointed paymaster of the Atlantic Coast Line, with headquarters at Wilmington, N. C. succeeding **R. A. Davis,** deceased.

## OPERATING

The name of the department of safety and sanitation of the Southern, Washington, D. C., has been changed to department of safety, effective April 1, **D. H. Beatty,** superintendent.

**F. B. Leonard,** train rules examiner of the Chicago, Burlington & Quincy, has been promoted to chief train rules examiner of the Burlington Lines, including the Chicago, Burlington & Quincy, the Colorado & Southern, the Ft. Worth & Denver City and the Wichita Valley, with headquarters as before at Chicago, succeeding **S. H. Shults,** who retired on pension April 1.

**W. W. Cunningham,** general agent on the Illinois Central at Baton Rouge, La., has been promoted to superintendent of the Vicksburg division, with headquarters at Vicksburg, Miss., succeeding **J. T. Stanford,** who has been transferred to the Iowa division, with headquarters at Waterloo, Iowa. Mr. Stanford replaces **W. R. Gillam,** who has been transferred to the Springfield division, with headquarters at Clinton, Ill., relieving **H. J. Roth,** who retired on March 31. The jurisdiction of the Iowa division has been extended to include the Freeport, Madison and Dodgeville districts.

**A. J. Kohne** has been appointed general superintendent, telegraph and telephone of the New York Central system, with headquarters at New York. Mr. Kohne was born in Toledo, Ohio, and began railroad service as messenger for the Michigan Central in 1894. He learned telegraphy in 1895 while working as station helper for the Lake Shore & Michigan Southern at West Toledo, Ohio, and later was employed as night operator in the train dispatcher's office at Toledo. He studied stenography and in 1903 was promoted to traveling secretary to the general superintendent and later occupied the same position with the general manager at Cleveland. In 1910 he was promoted to chief clerk to the general superintendent telegraph of the New York Central Lines West of Buffalo, with headquarters at Chicago. The office was moved to New York in 1916, with jurisdiction extended over the Lines East and West of Buffalo. When the position of general superintendent, Telegraph and Telephone, was discontinued in 1934, Mr. Kohne was appointed chief clerk in charge of the Telegraph and Telephone department, which position he held until his recent appointment.

**James O'Keeffe,** superintendent of the Shenandoah division of the Norfolk & Western, with headquarters at Roanoke, Va., has been appointed general agent and superintendent of terminals at Norfolk, Va., a newly created position, and **J. P. Jackson,** assistant superintendent of the Scioto division, with headquarters at Portsmouth, Ohio, has been promoted to superintendent of the Shenandoah division, succeeding Mr. O'Keeffe. **J. W. Neikirk,** roadmaster of the Radford division at Roanoke, has been advanced to assistant superintendent at Portsmouth, replacing Mr. Jackson.

**C. D. Merrill,** whose appointment as superintendent of stations and transfers of the Eastern region of the Pennsylvania at Philadelphia, Pa., was noted in the *Railway Age* of April 1, was born at Sullivan, Ind., on July 12, 1901. He was graduated from Purdue University and entered the service of the Pennsylvania on March 14, 1925, as assistant in the engineer corps and was appointed assistant supervisor of the Fort Wayne division on August 16, 1928. On January 5, 1931, he became supervisor at Wilkes-Barre, Pa., and on July 24, 1933, was transferred in the same capacity to West Philadelphia, Pa. Mr. Merrill was assigned to the office of the vice-president in charge of traffic as division engineer on November 16, 1935, and on January 1, 1937, he was transferred to the office of the chief engineer at Philadelphia as divi-

C. D. Merrill

sion engineer on special duty. Mr. Merrill was appointed superintendent of the Wilkes-Barre division on February 1, 1937, the position he held until his recent appointment as superintendent of stations and transfers.

**George F. Walter,** whose appointment as superintendent of freight transportation of the New York Zone of the Pennsylvania and the Long Island, at New York, was noted in the *Railway Age* of March 18, was born at Easton, Pa., on April 13, 1888. Mr. Walter attended the public schools and Lerch Preparatory School, Easton, and was graduated from Lafayette College in 1909 with the degree of Civil Engineer. He entered the service of the Lehigh Valley at Easton in June, 1909, as a rodman on the engineering corps in the maintenance of way department, resigning in December, 1909, to enter the service of the Pennsylvania on the Pittsburgh division as a chainman on the engineering corps in the maintenance of way department. After serving as chainman, rodman, transitman, assistant supervisor and supervisor of track at various points on

the Lines East of Pittsburgh, Mr. Walter was appointed assistant trainmaster at Baltimore, Md., in March, 1926. He served as assistant trainmaster at Baltimore,

George F. Walter

Md., Wilmington, Del., and Media, Pa., successively, until July, 1930, when he was assigned to the office of the general manager at New York. In May, 1932, Mr. Walter was transferred to the office of the chief engineer at Philadelphia, where he was assigned to duties for the chief engineer and chief of freight transportation, continuing those duties after his appointment as trainmaster on June 16, 1934, until May 1, 1936, when he returned to New York as supervisor of freight service of the New York Zone, the position he held until his recent appointment.

**Ralph B. M. Burke,** whose appointment as superintendent of stations and transfers of the New York Zone of the Pennsylvania, was noted in the *Railway Age* of March 18, entered the service of the Pennsylvania on the Camden and Amboy division at Moorestown, N. J., as a laborer in April, 1902. He then served in various positions until 1910 when he was transferred to the trainmaster's office at Camden, N. J., as special agent. When the Trenton division was established, Mr.

Ralph B. M. Burke

Burke was appointed extra agent and also assumed the duties of chief clerk to supervising agent. On May 1, 1916, he was appointed freight agent at South Amboy, N. J. During the world war he was assigned to agency at Camp Dix, N. J., in charge of handling troop movements. Subsequently Mr. Burke was appointed supervising agent, Trenton division, and then became supervising agent, Philadelphia Terminal division, West Philadelphia, Pa. On June 1, 1927, he was transferred to the traffic department as ticket agent at Pennsylvania station, New York, which position he held until December 1, 1928, when he was appointed supervisor of stations and transfers, New York Zone, the position he held until his recent appointment as superintendent of stations and transfers.

## TRAFFIC

**John K. Dent,** assistant to general freight agent on the Louisville & Nashville at Louisville, Ky., has been promoted to assistant general coal agent, with the same headquarters, a newly created position.

**H. W. Talmadge** has been appointed assistant general freight agent of the Southern, with headquarters at Atlanta, Ga.

**Otto Kopp,** traveling freight agent on the Northern Pacific, with headquarters at Moorhead, Minn., has been promoted to assistant general freight agent, with headquarters at St. Paul, Minn., succeeding **J. P. Roddy,** who has been transferred to Minneapolis, Minn. Mr. Roddy replaces **H. W. Wike,** who retired on April 1.

**W. J. Wilkins,** division freight and passenger agent on the Southern, with headquarters at St. Louis, Mo., has been promoted to assistant freight traffic manager, with headquarters at Memphis, Tenn., succeeding **William Humphreys,** who has been transferred to Evansville, Ind., and **O. A. Vinyard,** district freight and passenger agent, with headquarters at Peoria, Ill., has been advanced to division freight and passenger agent at St. Louis replacing Mr. Wilkins. **H. S. Knapp,** district freight and passenger agent at Cleveland, has been transferred to Peoria, relieving Mr. Vinyard and **A. C. Diven,** district freight and passenger agent at Evansville, Ind., has been transferred to Cleveland, succeeding Mr. Knapp.

**R. J. Foreman,** whose appointment as general freight traffic manager of the Canadian National was noted in the *Railway Age* of March 25, was born in Toronto, Ont., where he entered the service of the Grand Trunk in August, 1892, as a clerk in the superintendent's office. Mr. Foreman then served at Walkerville, Ont., St. Thomas, Ont., and Detroit, Mich., and in September, 1904, was appointed chief clerk to the chairman of the Canadian Freight Association at Toronto and at Montreal. In January, 1908, he was appointed chief clerk to the assistant freight traffic manager, later becoming chief of the tariff bureau of the Grand Trunk Pacific, with headquarters at Winnipeg, Man. In January, 1911, Mr. Foreman was appointed assistant general freight agent of the Grand Trunk Pacific at Winnipeg, and in 1913 was transferred to Montreal as assistant to the vice-president of the Grand Trunk and Grand Trunk Pacific. In August, 1920, he was appointed foreign freight agent, Canadian National, Montreal, and six years later was further promoted to general foreign freight agent. In 1930, Mr. Foreman became traffic man-

R. J. Foreman

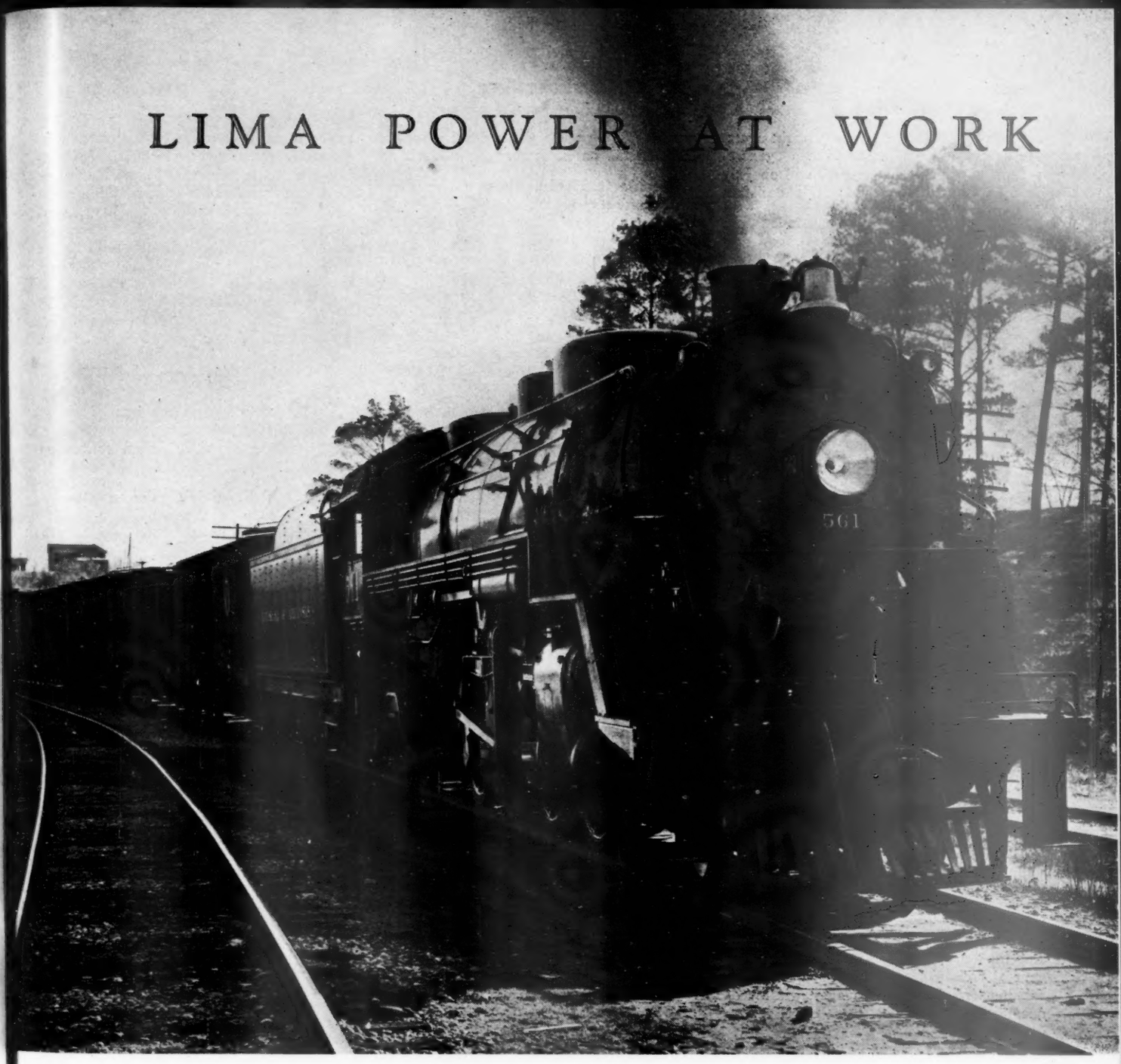
ager, foreign freight department, at Montreal, serving in that capacity until his recent appointment.

**Edwin T. Reynolds,** whose promotion to freight traffic manager in charge of solicitation of the Pere Marquette, with headquarters at Detroit, Mich., was announced in the *Railway Age* of March 11, was born at Middlemiss, Ont., on April 19, 1878, and attended the Collegiate Institute. He entered railway service in 1895 as a relief operator and agent on the Grand Trunk, later becoming a clerk in the office of the commercial agent. In July, 1905, Mr. Reynolds went with the Pere Marquette as chief clerk to the general agent at Buffalo, N. Y., and one year later he was appointed traveling freight agent, with headquarters in New York. In November, 1908, he was promoted to eastbound agent at that point and in December, 1914, he was advanced to general agent at Pittsburgh, Pa. In 1918 and 1919, he served in the treasury department of the United States Railroad Administration at

Edwin T. Reynolds

Detroit, and at the termination of this service became traffic manager for the Wills St. Claire Auto Company, Marysville, Mich. Mr. Reynolds returned to the Pere Marquette in March, 1922, as general agent at Detroit, and in July, 1924, he was

*Continued on next left-hand page*

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promoted to assistant general freight agent. He was further advanced to general freight agent in March, 1927, and on July 1, 1931, he was promoted to assistant freight traffic manager. His appointment as freight traffic manager, solicitation, was effective March 1.

**John C. Harms,** whose promotion to assistant freight traffic manager on the Pere Marquette, with headquarters at Chi-

John C. Harms

cago, was announced in the *Railway Age* of March 11, was born in Chicago, on November 21, 1887, and entered railway service on April 19, 1904, as a messenger and clerk in the freight traffic department of the Pere Marquette at Chicago. In 1911, he was promoted to traffic representative and in 1919, he was appointed commercial agent. In 1927, Mr. Harms was advanced to assistant general freight agent, with headquarters at Detroit, Mich., and four years later he was promoted to general freight agent. His appointment as assistant freight traffic manager, with headquarters at Chicago, was effective on March 1.

## ENGINEERING AND SIGNALING

**John I. Kirsch,** supervisor of telegraph and signals in the general office of the Pennsylvania, with headquarters at Philadelphia, Pa., has been promoted to assistant superintendent of telegraph and signals, Eastern Region, with the same headquarters, succeeding **A. M. Crawford,** whose promotion to superintendent of telegraph and signals, Central Region, with headquarters at Pittsburgh, Pa., was announced in the *Railway Age* of January 21. Mr. Kirsch was born at Rosemont, Pa., on September 27, 1894, and graduated in electrical engineering from Villanova College in 1917. He entered railway service on December 1, 1917, as a signal apprentice on the New York division of the Pennsylvania, and was appointed assistant supervisor of telegraph and signals of the Atlantic division on June 1, 1920. On July 16, 1926, he was advanced to signal inspector, Western Region, and on January 1, 1929, to supervisor of telegraph and signals of the Long Island. He was transferred to the New York division on August 1, 1931, and to the general offices at Philadelphia on September 22, 1937.

**Ritchie G. Kenly,** whose retirement as chief engineer of the Minneapolis & St. Louis, with headquarters at Minneapolis, Minn., was announced in the *Railway Age* of April 1, was born in Ritchie County, W. Va., on March 13, 1866, and attended Baltimore City College. He entered railway service in 1885 as a rodman and levelman on the Annapolis & Baltimore Shore Line (now Washington, Baltimore & Annapolis Electric) and in 1886 he went with the Baltimore & Eastern Shore (now part of the Pennsylvania) as a levelman. Later the same year he became a transitman on a hydrographic survey of the Baltimore harbor but returned to railroad service the latter part of that year as an assistant supervisor on the Northern Central (now Pennsylvania). In 1891, he went with the Norfolk & Western as a supervisor and in 1893, he was promoted to assistant engineer. In 1897, he was advanced to assistant trainmaster. A year later Mr. Kenly went with the West Virginia Central & Pittsburgh (now Western Maryland) as assistant to the chief engineer and in 1899, he went with the Philadelphia & Erie (now Pennsylvania) as a draftsman and construction engineer. The following year he became a supervisor on the Lehigh Valley and later that year was promoted to divi-

Ritchie G. Kenly

sion engineer. In 1904, he was advanced to trainmaster, with headquarters at Easton, Pa., and in 1907, he was appointed a superintendent on the Lehigh & New England. Mr. Kenly returned to the Lehigh Valley in 1908 as engineer maintenance of way and the following year he went with the Minneapolis & St. Louis as chief engineer. In 1917, he was promoted to general manager and in 1918, he was appointed general superintendent. He was appointed assistant to the president and chief engineer in 1920 and in 1923, he resumed his former title of chief engineer, the position he held at the time of his retirement.

## MECHANICAL

**A. D. Bingman,** assistant superintendent of equipment on the New York Central, Lines West of Buffalo, with headquarters at Cleveland, Ohio, has been promoted to superintendent of equipment with the same headquarters, succeeding **J. Chidley,** who retired on April 1, and **Raymond C. Cross,** master mechanic at Collinwood, Ohio, has been advanced to assistant superintendent of equipment at Cleveland, replacing Mr. Bingman. **Shannon T. Kuhn,** assistant master mechanic at Collinwood, has been promoted to master mechanic at that point relieving Mr. Cross and **L. P. Whittingham** has been appointed assistant master mechanic to succeed Mr. Kuhn.

## SPECIAL

**L. F. Shedd,** superintendent of safety of the Chicago, Rock Island & Pacific, with headquarters at Chicago, retired on March 31.

**Raymond F. Welsh,** chief examiner of the Association of Western Railways, has been promoted to secretary, succeeding **Edward Murrin,** whose promotion to executive secretary was announced in the *Railway Age* of April 1.

**George F. Doyle,** special agent on the Illinois Central in charge of the New Orleans Terminal, New Orleans, La., has been promoted to assistant chief special agent, with headquarters at Chicago, a position that has been vacant since the promotion of **T. J. Healey** to acting chief special agent on September 1, 1938.

## OBITUARY

**Malcolm K. McQuarrie,** engineer of the Dominion Atlantic railway, with headquarters at Kentville, N. S., died in Montreal, Que., on March 15 at the age of 54.

**R. A. Ebe,** who retired a year ago as general live stock agent of the Baltimore & Ohio, with headquarters at Baltimore, Md., died on April 2 at his home in that city, at the age of 72.

**Ellis J. Bloodgood,** who retired in 1932 as assistant general auditor of the Chicago & North Western, with headquarters at Chicago, died at the age of 76 at his home in Oak Park, Ill., on April 4. Mr. Bloodgood entered the service of the North Western in 1885 and was advanced through various positions in the accounting department to auditor of freight accounts at Chicago. He was promoted to assistant general auditor, with headquarters at Chicago, in 1923, and held that position until his retirement.

**John Earl Palmer,** general attorney on the Minneapolis, St. Paul & Sault Ste. Marie, with headquarters at Minneapolis, Minn., died in a hospital in that city on April 2. Mr. Palmer was born at Boothbay Harbor, Me., on February 28, 1873, and after completion of his college education, was admitted to the bar in 1899. He later served for ten years as prosecuting attorney for Martin County, Minn., and for three and one-half years as assistant attorney general of the State of Minnesota. On April 16, 1920, he went with the Minneapolis, St. Paul & Sault Ste. Marie as general attorney, with headquarters at Minneapolis, the position he held at the time of his death.

*Table of Revenues and Expenses Begins on next left-hand page*

# REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1939

| Name of road | | Av. mileage operated during period | Operating revenues: Freight | Passenger | Total (inc. misc.) | Operating expenses: Maintenance of Way and structures | Maintenance of Equipment | Traffic | Transportation | Total | Operating ratio | Net from railway operation | Operating income | Net railway operating income 1939 | Net railway operating income 1938 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Akron, Canton & Youngstown | Feb. | 171 | $137,262 | $45 | $142,510 | $22,727 | $17,753 | $14,624 | $48,660 | $112,503 | 78.9 | $30,007 | $15,975 | $1,846 | —$13,888 |
| | 2 mos. | 171 | 317,781 | 86 | 330,296 | 44,680 | 35,488 | 28,022 | 102,961 | 229,055 | 69.3 | 101,241 | 72,951 | 41,446 | —28,406 |
| Alton | Feb. | 959 | 775,257 | 196,162 | 1,130,967 | 122,135 | 161,047 | 39,429 | 509,355 | 900,417 | 79.6 | 230,550 | 134,068 | —10,417 | —54,987 |
| | 2 mos. | 959 | 1,552,449 | 418,499 | 2,310,791 | 276,367 | 331,590 | 82,727 | 1,039,378 | 1,866,968 | 80.8 | 443,823 | 249,107 | —60,716 | —77,438 |
| Atchison, Topeka & Santa Fe System | Feb. | 13,475 | 7,837,805 | 1,207,877 | 9,976,491 | 1,412,284 | 2,645,642 | 438,182 | 4,154,467 | 9,013,805 | 90.4 | 962,686 | —186,890 | —259,104 | —1,261,162 |
| | 2 mos. | 13,475 | 16,773,539 | 2,563,069 | 21,286,254 | 2,825,172 | 5,522,101 | 894,341 | 8,781,957 | 18,776,957 | 88.2 | 2,509,297 | 36,920 | —115,886 | —2,127,803 |
| Atlanta & West Point | Feb. | 93 | 91,154 | 20,863 | 133,823 | 14,569 | 25,107 | 8,284 | 59,552 | 117,503 | 87.8 | 16,320 | 6,806 | —6,459 | —22,706 |
| | 2 mos. | 93 | 197,043 | 44,934 | 284,810 | 29,325 | 52,044 | 15,936 | 129,975 | 247,609 | 86.9 | 37,201 | 18,088 | —9,201 | —47,061 |
| Western of Alabama | Feb. | 133 | 88,544 | 20,763 | 127,285 | 15,532 | 28,066 | 8,368 | 53,677 | 114,556 | 90.0 | 12,729 | —654 | 2,336 | —3,277 |
| | 2 mos. | 133 | 187,081 | 44,741 | 268,980 | 32,667 | 59,516 | 15,856 | 110,078 | 236,489 | 87.9 | 32,491 | 5,423 | 8,372 | —5,900 |
| Atlanta, Birmingham & Coast | Feb. | 639 | 244,640 | 42,392 | 307,408 | 40,959 | 45,524 | 24,512 | 118,958 | 248,226 | 80.7 | 59,182 | 36,474 | 5,899 | —31,448 |
| | 2 mos. | 639 | 521,504 | 77,327 | 642,166 | 87,394 | 95,424 | 48,373 | 243,086 | 512,525 | 79.8 | 129,641 | 83,775 | 28,448 | —66,366 |
| Atlantic Coast Line | Feb. | 5,108 | 3,034,431 | 1,033,270 | 4,510,260 | 425,192 | 699,557 | 183,632 | 1,642,517 | 3,172,811 | 70.3 | 1,337,449 | 862,449 | 622,917 | 566,364 |
| | 2 mos. | 5,108 | 6,135,348 | 1,800,215 | 8,851,021 | 870,960 | 1,469,756 | 361,693 | 3,351,488 | 6,490,659 | 73.3 | 2,360,362 | 1,435,362 | 960,191 | 675,195 |
| Charleston & Western Carolina | Feb. | 343 | 188,963 | 687 | 193,781 | 23,930 | 26,111 | 8,608 | 62,803 | 126,899 | 65.5 | 66,882 | 41,882 | 36,277 | —2,709 |
| | 2 mos. | 343 | 384,105 | 1,433 | 394,079 | 49,484 | 52,513 | 16,125 | 130,803 | 260,089 | 66.0 | 133,990 | 83,990 | 75,662 | 4,372 |
| Baltimore & Ohio | Feb. | 6,405 | 9,512,388 | 675,426 | 10,837,049 | 816,045 | 2,454,624 | 378,093 | 4,257,682 | 8,492,267 | 78.4 | 2,344,782 | 1,476,055 | 1,260,259 | —920,817 |
| | 2 mos. | 6,405 | 19,877,049 | 1,525,488 | 22,790,529 | 1,706,230 | 5,030,763 | 707,726 | 8,866,329 | 17,544,305 | 77.0 | 5,246,224 | 3,498,974 | 2,931,178 | —623,916 |
| Staten Island Rapid Transit | Feb. | 24 | 45,959 | 70,758 | 124,661 | 10,810 | 20,614 | 1,054 | 81,895 | 125,763 | 100.9 | —1,102 | —29,467 | —36,205 | —39,343 |
| | 2 mos. | 24 | 98,475 | 146,323 | 262,135 | 24,573 | 40,778 | 2,607 | 169,261 | 258,987 | 98.8 | 3,148 | —53,979 | —69,370 | —77,532 |
| Bangor & Aroostook | Feb. | 603 | 540,064 | 18,323 | 575,465 | 94,693 | 81,641 | 6,011 | 138,928 | 346,667 | 60.2 | 228,798 | 174,850 | 165,578 | 208,434 |
| | 2 mos. | 603 | 1,081,056 | 34,479 | 1,150,663 | 174,891 | 171,192 | 11,460 | 283,914 | 692,580 | 60.2 | 458,083 | 346,485 | 333,142 | 460,473 |
| Bessemer & Lake Erie | Feb. | 224 | 439,586 | 624 | 452,168 | 52,867 | 240,668 | 13,851 | 138,220 | 476,951 | 105.5 | —24,783 | —68,507 | —27,525 | —176,713 |
| | 2 mos. | 224 | 846,745 | 1,323 | 872,142 | 92,871 | 484,812 | 28,418 | 279,889 | 950,704 | 109.0 | —78,562 | —165,228 | —85,276 | —392,658 |
| Boston & Maine | Feb. | 1,952 | 2,440,407 | 601,131 | 3,501,715 | 397,871 | 590,290 | 66,789 | 1,461,387 | 2,663,506 | 76.1 | 838,209 | 539,258 | 306,711 | —114,582 |
| | 2 mos. | 1,956 | 5,166,971 | 1,182,399 | 7,327,850 | 771,872 | 1,181,941 | 124,956 | 3,041,842 | 5,427,136 | 74.1 | 1,900,714 | 1,293,736 | 785,432 | —155,436 |
| Burlington, Rock Island | Feb. | 255 | 73,367 | 15,833 | 94,570 | 13,253 | 19,926 | 4,636 | 43,347 | 90,735 | 95.9 | 3,835 | —4,323 | —8,863 | —31,637 |
| | 2 mos. | 255 | 149,396 | 33,266 | 195,270 | 27,636 | 37,642 | 9,009 | 90,795 | 184,515 | 94.5 | 10,755 | —5,815 | —14,421 | —49,592 |
| Cambria & Indiana | Feb. | 37 | 134,198 | ..... | 134,297 | 4,970 | 43,064 | 394 | 12,657 | 66,146 | 49.25 | 68,151 | 31,702 | 98,136 | 69,597 |
| | 2 mos. | 37 | 279,786 | ..... | 279,970 | 10,115 | 83,858 | 824 | 26,093 | 132,791 | 47.43 | 147,179 | 71,969 | 214,162 | 158,685 |
| Canadian Pacific Lines in Maine | Feb. | 234 | 241,894 | 13,376 | 266,402 | 26,612 | 44,436 | 9,981 | 93,518 | 180,331 | 67.7 | 86,071 | 75,232 | 56,610 | 61,171 |
| | 2 mos. | 234 | 457,006 | 28,535 | 510,679 | 45,518 | 88,170 | 18,460 | 181,174 | 344,155 | 67.4 | 166,524 | 144,947 | 99,600 | 122,889 |
| Canadian Pacific Lines in Vermont | Feb. | 91 | 64,775 | 8,461 | 82,872 | 11,087 | 21,597 | 4,549 | 59,249 | 100,098 | 120.8 | —17,226 | —24,093 | —41,984 | —69,002 |
| | 2 mos. | 91 | 124,353 | 21,043 | 166,909 | 21,979 | 48,246 | 8,357 | 125,735 | 211,078 | 126.5 | —44,169 | —57,757 | —95,711 | —148,780 |
| Central of Georgia | Feb. | 1,871 | 936,223 | 100,444 | 1,179,011 | 158,140 | 257,592 | 50,939 | 529,552 | 1,073,339 | 91.0 | 105,672 | —4,009 | —10,812 | —46,221 |
| | 2 mos. | 1,871 | 1,939,327 | 217,373 | 2,449,700 | 316,546 | 526,126 | 103,163 | 1,088,983 | 2,189,636 | 89.4 | 260,064 | 39,085 | 29,164 | —108,757 |
| Central of New Jersey | Feb. | 712 | 1,863,829 | 318,081 | 2,332,980 | 218,241 | 505,807 | 44,757 | 1,028,994 | 1,902,022 | 81.5 | 430,958 | 77,940 | —97,631 | —77,776 |
| | 2 mos. | 712 | 3,908,736 | 666,821 | 4,898,122 | 452,180 | 990,137 | 89,622 | 2,157,228 | 3,883,305 | 79.3 | 1,014,817 | 306,059 | —50,071 | 79,318 |
| Central Vermont | Feb. | 430 | 355,914 | 33,674 | 423,677 | 79,393 | 80,991 | 11,462 | 195,330 | 385,907 | 91.7 | 37,770 | 12,045 | —14,843 | —59,291 |
| | 2 mos. | 430 | 689,893 | 70,957 | 830,899 | 128,211 | 172,927 | 22,659 | 399,992 | 761,461 | 91.6 | 69,438 | 17,269 | —47,228 | —179,257 |
| Chesapeake & Ohio | Feb. | 3,110 | 7,932,866 | 184,077 | 8,356,864 | 862,778 | 1,894,939 | 197,608 | 2,166,949 | 5,395,451 | 64.6 | 2,961,413 | 2,008,070 | 2,026,414 | 1,452,086 |
| | 2 mos. | 3,110 | 16,564,663 | 423,516 | 17,493,302 | 1,810,286 | 3,873,002 | 402,691 | 4,457,445 | 11,126,972 | 63.6 | 6,366,330 | 4,391,638 | 4,455,885 | 3,496,545 |
| Chicago & Eastern Illinois | Feb. | 927 | 918,892 | 120,252 | 1,183,698 | 140,743 | 206,491 | 54,242 | 498,646 | 963,824 | 81.4 | 219,874 | 140,874 | 938 | —19,630 |
| | 2 mos. | 927 | 1,852,956 | 265,897 | 2,414,884 | 280,056 | 412,724 | 108,367 | 1,009,200 | 1,941,073 | 80.4 | 473,811 | 315,811 | 44,122 | 11,434 |
| Chicago & Illinois Midland | Feb. | 131 | 271,290 | 930 | 279,628 | 24,615 | 67,087 | 18,461 | 73,758 | 201,028 | 71.9 | 78,600 | 52,781 | 61,363 | 50,667 |
| | 2 mos. | 131 | 562,807 | 1,753 | 582,976 | 52,518 | 136,336 | 42,061 | 155,981 | 422,618 | 72.5 | 160,358 | 109,126 | 126,149 | 109,087 |
| Chicago & North Western | Feb. | 8,383 | 4,136,240 | 750,007 | 5,526,434 | 789,581 | 1,387,629 | 181,299 | 2,691,962 | 5,346,337 | 96.7 | 180,097 | —427,370 | —668,825 | —829,225 |
| | 2 mos. | 8,383 | 8,760,298 | 1,638,035 | 11,734,693 | 1,569,894 | 2,848,180 | 372,125 | 5,537,401 | 10,925,420 | 93.1 | 809,273 | —416,060 | —883,572 | —1,609,020 |
| Chicago, Burlington & Quincy | Feb. | 8,941 | 5,289,755 | 612,013 | 6,588,580 | 618,360 | 1,354,504 | 250,489 | 2,695,793 | 5,195,696 | 78.9 | 1,392,884 | 666,976 | 333,454 | —120,155 |
| | 2 mos. | 8,941 | 11,062,716 | 1,338,229 | 13,844,268 | 1,259,118 | 2,810,737 | 483,069 | 5,493,759 | 10,618,002 | 76.7 | 3,226266 | 1,783,119 | 1,085,938 | —88,144 |
| Chicago Great Western | Feb. | 1,505 | 1,172,933 | 31,533 | 1,290,673 | 186,709 | 222,608 | 57,878 | 544,262 | 1,060,301 | 82.2 | 230,372 | 139,347 | —30,235 | —178,690 |
| | 2 mos. | 1,505 | 2,473,376 | 74,199 | 2,736,833 | 380,083 | 466,287 | 117,449 | 1,112,445 | 2,181,288 | 79.7 | 555,545 | 375,326 | 3,605 | —285,961 |
| Chicago, Indianapolis & Louisville | Feb. | 549 | 516,416 | 39,191 | 611,497 | 71,556 | 174,442 | 29,709 | 288,287 | 596,773 | 97.6 | 14,724 | —29,453 | —128,862 | —145,882 |
| | 2 mos. | 549 | 1,104,486 | 88,966 | 1,314,188 | 152,584 | 363,144 | 60,463 | 599,483 | 1,243,323 | 94.6 | 70,865 | —19,014 | —218,835 | —270,532 |

Continued on next left-hand page

NO. 86 OF A SERIES OF FAMOUS ARCHES OF THE WORLD

# MEMORIAL ARCH

## BROOKLYN

At Grand Army Plaza, directly in front of the entrance to Brooklyn's Prospect Park, stands the 80 ft. "Soldiers and Sailors Memorial Arch." This arch, dedicated on October 21st, 1892, is constructed of gray granite, on a foundation of dark polished granite. The span of the arch is 37 ft. by 48 ft. in height. The monument is surmounted by a bronze quadriga of heroic size executed by Frederick MacMonnies, and on the park facade are two symbolic groups representing the Army and the Navy, also by MacMonnies. This arch is dedicated "To The Defenders Of the Union 1861-1865." » » »

There is no dedication on the Security Sectional Arch Brick, but if there were it could rightfully read: "Dedicated to the development and continuance of the economy and effectiveness of the Steam Locomotive."

*There's More to SECURITY ARCHES Than Just Brick*

# REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1939—CONTINUED

| Name of road | | Av. mileage operated during period | Operating revenues: Freight | Passenger | Total (inc. misc.) | Operating expenses: Maintenance of: Way and structures | Equipment | Traffic | Transportation | Total | Operating ratio | Net from railway operation | Operating income | Net railway operating income: 1939 | 1938 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chicago, Milwaukee, St. Paul & Pacific | Feb. | 10,942 | $6,022,786 | $524,501 | $7,224,572 | $795,965 | $1,594,180 | $216,329 | $3,162,054 | $6,119,402 | 84.7 | $1,105,170 | $418,170 | $40,146 | —$228,427 |
| | 2 mos. | 10,942 | 12,750,927 | 1,171,192 | 15,320,667 | 1,756,917 | 3,232,604 | 423,580 | 6,523,466 | 12,654,329 | 82.6 | 2,666,338 | 1,260,338 | 477,159 | —126,016 |
| Chicago, Rock Island & Pacific | Feb. | 7,235 | 4,103,380 | 532,144 | 5,056,680 | 608,336 | 1,132,119 | 227,807 | 2,203,560 | 4,482,058 | 88.6 | 574,622 | 102,650 | —166,808 | —300,999 |
| | 2 mos. | 7,288 | 8,692,820 | 1,182,327 | 10,762,653 | 1,215,572 | 2,339,755 | 459,633 | 4,600,607 | 9,238,704 | 85.8 | 1,523,949 | 570,626 | 71,385 | —455,413 |
| Chicago, Rock Island & Gulf | Feb. | 627 | 211,661 | 29,237 | 323,851 | 55,898 | 30,820 | 20,712 | 125,644 | 258,211 | 79.7 | 65,640 | 42,219 | —34,664 | 14 |
| | 2 mos. | 627 | 487,786 | 58,105 | 717,527 | 114,940 | 65,452 | 42,058 | 253,816 | 525,156 | 73.2 | 192,371 | 143,930 | —4,509 | —4,114 |
| Chicago, St. Paul, Minneapolis & Omaha | Feb. | 1,629 | 976,618 | 98,572 | 1,147,713 | 112,416 | 249,913 | 35,023 | 664,349 | 1,124,526 | 98.0 | 23,187 | —86,024 | —190,546 | —143,125 |
| | 2 mos. | 1,629 | 2,049,370 | 211,515 | 2,414,406 | 221,573 | 505,960 | 74,575 | 1,348,608 | 2,278,242 | 94.4 | 136,164 | —85,456 | —286,000 | —233,074 |
| Clinchfield Railroad | Feb. | 308 | 553,753 | 2,297 | 560,750 | 37,583 | 96,515 | 19,551 | 112,473 | 281,849 | 50.3 | 278,901 | 228,954 | 244,218 | 150,542 |
| | 2 mos. | 308 | 1,162,697 | 5,335 | 1,178,212 | 68,021 | 193,880 | 37,788 | 228,753 | 559,903 | 47.5 | 618,309 | 518,406 | 557,272 | 343,639 |
| Colorado & Southern | Feb. | 804 | 322,825 | 26,722 | 397,750 | 39,065 | 92,963 | 14,083 | 176,671 | 348,626 | 87.6 | 49,124 | —27,773 | —31,069 | —40,301 |
| | 2 mos. | 804 | 666,165 | 56,811 | 826,360 | 79,847 | 202,333 | 29,725 | 377,334 | 740,547 | 89.6 | 85,813 | —68,656 | —90,615 | —100,052 |
| Fort Worth & Denver City | Feb. | 902 | 371,265 | 42,936 | 403,297 | 43,772 | 75,506 | 18,075 | 159,371 | 329,061 | 81.6 | 74,236 | 38,223 | 6,725 | 37,297 |
| | 2 mos. | 902 | 773,160 | 92,040 | 846,476 | 94,506 | 164,208 | 37,168 | 334,130 | 697,498 | 82.4 | 148,978 | 76,013 | 16,470 | 132,171 |
| Columbus & Greenville | Feb. | 168 | 78,829 | 4,933 | 89,327 | 11,051 | 14,522 | 4,538 | 33,004 | 73,212 | 82.0 | 16,115 | 7,957 | 7,388 | 5,231 |
| | 2 mos. | 168 | 177,157 | 11,444 | 199,407 | 29,201 | 30,265 | 8,779 | 74,201 | 162,743 | 81.6 | 36,664 | 17,827 | 13,517 | 648 |
| Delaware & Hudson | Feb. | 831 | 1,615,811 | 89,480 | 1,776,907 | 179,005 | 322,042 | 44,932 | 723,098 | 1,361,033 | 76.6 | 415,874 | 270,875 | 258,801 | 62,897 |
| | 2 mos. | 831 | 3,524,765 | 196,464 | 3,873,691 | 349,779 | 653,642 | 84,352 | 1,489,534 | 2,765,086 | 71.4 | 1,108,605 | 816,766 | 787,709 | 86,596 |
| Delaware, Lackawanna & Western | Feb. | 986 | 2,726,428 | 500,323 | 3,594,667 | 209,815 | 783,630 | 113,698 | 1,781,690 | 3,024,175 | 84.1 | 570,492 | 165,492 | 100,908 | 4,616 |
| | 2 mos. | 986 | 5,818,729 | 1,069,987 | 7,683,179 | 390,603 | 1,541,214 | 224,233 | 3,713,893 | 6,141,333 | 79.9 | 1,541,846 | 736,846 | 592,434 | 100,811 |
| Denver & Rio Grande Western | Feb. | 2,563 | 1,454,634 | 54,683 | 1,595,936 | 150,375 | 477,851 | 62,006 | 629,191 | 1,398,996 | 87.7 | 196,940 | 3,035 | —43,581 | —185,669 |
| | 2 mos. | 2,563 | 3,120,051 | 158,100 | 3,447,742 | 277,565 | 967,131 | 133,931 | 1,315,700 | 2,856,260 | 82.8 | 591,482 | 203,730 | 101,440 | —213,597 |
| Denver & Salt Lake | Feb. | 232 | 192,550 | 7,454 | 208,406 | 12,664 | 42,788 | 2,751 | 66,631 | 134,320 | 64.5 | 74,086 | 44,765 | 87,096 | 67,731 |
| | 2 mos. | 232 | 393,509 | 13,965 | 424,857 | 28,400 | 86,971 | 5,267 | 130,478 | 272,054 | 64.0 | 152,803 | 93,834 | 169,380 | 118,092 |
| Detroit & Mackinac | Feb. | 242 | 42,598 | 3,667 | 54,748 | 6,384 | 10,826 | 921 | 23,040 | 44,080 | 80.5 | 10,668 | 7,881 | 4,003 | —8,231 |
| | 2 mos. | 242 | 84,308 | 7,009 | 109,818 | 13,569 | 23,704 | 1,798 | 46,376 | 91,359 | 83.2 | 18,459 | 12,553 | 4,640 | —13,084 |
| Detroit & Toledo Shore Line | Feb. | 50 | 312,640 | ..... | 313,685 | 18,407 | 22,915 | 9,515 | 103,028 | 161,755 | 51.6 | 151,930 | 118,079 | 62,261 | 44,277 |
| | 2 mos. | 50 | 678,829 | ..... | 680,761 | 38,274 | 44,650 | 18,514 | 217,941 | 335,032 | 49.2 | 345,729 | 272,360 | 157,408 | 107,600 |
| Detroit, Toledo & Ironton | Feb. | 472 | 528,900 | 156 | 551,226 | 50,476 | 85,278 | 12,070 | 131,920 | 298,495 | 54.2 | 252,731 | 189,082 | 167,152 | 74,769 |
| | 2 mos. | 472 | 1,225,667 | 332 | 1,273,609 | 101,363 | 172,263 | 24,052 | 272,613 | 608,674 | 47.8 | 664,935 | 514,601 | 464,494 | 240,034 |
| Duluth, Missabe & Iron Range | Feb. | 540 | 75,491 | 1,651 | 92,528 | 128,216 | 221,142 | 3,807 | 155,895 | 541,241 | 584.9 | —448,713 | —564,007 | —561,320 | —503,787 |
| | 2 mos. | 540 | 139,685 | 2,876 | 176,615 | 247,141 | 440,056 | 8,480 | 300,494 | 1,066,165 | 603.7 | —889,550 | —1,118,935 | —1,121,321 | —1,018,283 |
| Duluth, Winnipeg & Pacific | Feb. | 175 | 108,543 | 1,048 | 112,317 | 22,452 | 18,043 | 2,183 | 50,790 | 97,043 | 86.4 | 15,274 | 6,335 | —8,354 | —22,273 |
| | 2 mos. | 175 | 223,079 | 2,397 | 231,205 | 37,324 | 38,990 | 4,369 | 101,209 | 189,584 | 82.0 | 41,621 | 23,606 | —2,394 | —32,462 |
| Elgin, Joliet & Eastern | Feb. | 390 | 1,223,577 | ..... | 1,361,984 | 132,721 | 256,661 | 14,784 | 509,106 | 953,772 | 70.0 | 408,212 | 267,162 | 218,119 | —119,185 |
| | 2 mos. | 390 | 2,552,606 | 1 | 2,842,340 | 264,137 | 502,419 | 30,262 | 1,034,196 | 1,909,241 | 67.2 | 933,099 | 655,050 | 540,450 | —91,939 |
| Erie | Feb. | 2,290 | 4,979,013 | 345,729 | 5,696,875 | 477,938 | 1,291,050 | 166,628 | 2,350,993 | 4,534,628 | 79.6 | 1,162,247 | 600,521 | 363,686 | —504,008 |
| | 2 mos. | 2,290 | 10,456,412 | 737,429 | 11,971,627 | 968,793 | 2,614,240 | 334,233 | 4,855,553 | 9,266,729 | 77.4 | 2,704,898 | 1,572,687 | 1,108,791 | —286,074 |
| New York, Susquehanna & Western | Feb. | 144 | 208,836 | 17,636 | 239,843 | 15,092 | 19,660 | 3,264 | 99,383 | 151,455 | 63.1 | 88,388 | 54,647 | 15,234 | —7,795 |
| | 2 mos. | 144 | 465,088 | 36,207 | 527,050 | 31,220 | 42,498 | 6,456 | 210,925 | 318,342 | 60.4 | 208,708 | 140,805 | 59,026 | 45,091 |
| Florida East Coast | Feb. | 685 | 643,145 | 507,607 | 1,265,199 | 91,895 | 144,545 | 24,612 | 348,043 | 679,088 | 53.7 | 586,111 | 503,156 | 439,165 | 484,246 |
| | 2 mos. | 685 | 1,300,001 | 832,158 | 2,355,266 | 183,471 | 293,700 | 51,082 | 705,414 | 1,371,843 | 58.2 | 983,423 | 816,845 | 698,244 | 683,590 |
| Georgia Railroad | Feb. | 329 | 232,079 | 8,587 | 261,898 | 30,995 | 45,893 | 18,211 | 119,867 | 228,768 | 87.4 | 33,130 | 18,207 | 31,732 | 21,050 |
| | 2 mos. | 329 | 486,402 | 19,871 | 550,375 | 53,097 | 96,021 | 36,894 | 244,647 | 458,372 | 83.3 | 92,003 | 61,641 | 90,264 | 21,538 |
| Georgia & Florida | Feb. | 408 | 73,956 | 1,165 | 78,839 | 16,467 | 16,878 | 8,529 | 34,395 | 81,561 | 103.5 | —2,722 | —10,582 | —14,738 | —20,021 |
| | 2 mos. | 408 | 152,553 | 2,361 | 162,420 | 36,130 | 32,381 | 16,646 | 69,481 | 165,252 | 101.7 | —2,832 | —18,602 | —26,832 | —32,932 |
| Grand Trunk Western | Feb. | 1,032 | 1,535,019 | 60,999 | 1,709,457 | 207,842 | 368,650 | 39,982 | 734,691 | 1,421,444 | 83.2 | 288,013 | 165,732 | 83,380 | —209,735 |
| | 2 mos | 1,032 | 3,115,000 | 144,403 | 3,511,778 | 427,267 | 749,223 | 79,479 | 1,525,485 | 2,925,146 | 83.3 | 586,632 | 338,583 | 180,303 | —406,741 |
| Canadian National Lines in New England | Feb. | 172 | 97,287 | 4,012 | 110,452 | 28,614 | 20,687 | 2,718 | 62,436 | 119,345 | 108.0 | —8,893 | —25,057 | —55,550 | —30,606 |
| | 2 mos. | 172 | 192,195 | 8,902 | 221,740 | 57,759 | 36,034 | 5,387 | 142,011 | 251,241 | 113.3 | —29,501 | —61,829 | —121,996 | —101,434 |
| Great Northern | Feb. | 8,072 | 3,912,039 | 264,867 | 4,581,890 | 596,360 | 1,180,680 | 181,783 | 2,107,714 | 4,285,589 | 93.5 | 296,301 | —369,143 | —492,170 | —630,069 |
| | 2 mos. | 8,072 | 8,293,802 | 623,285 | 9,751,775 | 1,149,453 | 2,414,576 | 361,105 | 4,323,935 | 8,717,060 | 89.4 | 1,034,715 | —322,199 | —591,453 | —1,126,652 |
| Green Bay & Western | Feb. | 234 | 121,877 | 305 | 126,364 | 19,089 | 16,988 | 6,418 | 44,905 | 92,168 | 72.9 | 34,196 | 21,612 | 14,251 | 729 |
| | 2 mos. | 234 | 262,722 | 666 | 271,971 | 40,914 | 25,003 | 13,464 | 94,765 | 185,425 | 68.1 | 86,546 | 61,197 | 45,362 | 16,136 |

Continued on next left-hand page

# REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1939—CONTINUED

| Name of road | | Av. mileage operated during period | Operating revenues: Freight | Passenger | Total (inc. misc.) | Operating expenses: Maintenance of Way and structures | Maintenance of Equipment | Traffic | Transportation | Total | Operating ratio | Net from railway operation | Operating income | Net railway operating income 1939 | 1938 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gulf & Ship Island | Feb. | 259 | $69,208 | $2,740 | $79,981 | $19,282 | $16,348 | $2,392 | $41,809 | $84,510 | 105.7 | —$4,529 | —$21,224 | —$29,777 | —$30,243 |
| | 2 mos. | 259 | 145,161 | 6,172 | 168,808 | 37,917 | 42,010 | 4,943 | 86,384 | 181,246 | 107.4 | —12,438 | —45,922 | —63,051 | —62,509 |
| Gulf, Mobile & Northern | Feb. | 824 | 427,012 | 17,770 | 464,929 | 68,436 | 71,636 | 39,000 | 140,003 | 344,117 | 74.0 | 120,812 | 73,812 | 41,085 | 17,574 |
| | 2 mos. | 824 | 909,312 | 35,629 | 989,048 | 137,926 | 153,200 | 79,955 | 290,322 | 721,041 | 72.9 | 268,007 | 174,007 | 107,535 | 51,738 |
| Illinois Central | Feb. | 4,949 | 5,926,848 | 746,753 | 7,179,877 | 723,512 | 1,549,155 | 182,068 | 2,919,631 | 5,691,432 | 79.3 | 1,488,445 | 815,959 | 779,058 | 778,420 |
| | 2 mos. | 4,949 | 12,415,066 | 1,575,981 | 15,029,587 | 1,473,755 | 3,188,242 | 373,043 | 6,006,120 | 11,692,011 | 77.8 | 3,337,576 | 1,951,060 | 1,840,355 | 1,870,389 |
| Yazoo & Mississippi Valley | Feb. | 1,619 | 914,318 | 47,094 | 1,026,699 | 115,539 | 164,494 | 28,830 | 438,879 | 790,278 | 77.0 | 236,421 | 100,085 | 41,309 | 99,098 |
| | 2 mos. | 1,619 | 1,883,677 | 103,984 | 2,132,339 | 235,543 | 342,900 | 59,199 | 923,841 | 1,647,406 | 77.3 | 484,933 | 210,314 | 79,615 | 246,096 |
| Illinois Central System | Feb. | 6,568 | 6,841,166 | 793,847 | 8,206,576 | 839,051 | 1,713,649 | 210,898 | 3,358,510 | 6,481,710 | 79.0 | 1,724,866 | 913,991 | 829,280 | 887,118 |
| | 2 mos. | 6,568 | 14,298,743 | 1,679,965 | 17,161,926 | 1,709,298 | 3,531,142 | 432,242 | 6,929,961 | 13,339,417 | 77.7 | 3,822,509 | 2,157,268 | 1,937,796 | 2,135,285 |
| Illinois Terminal | Feb. | 496 | 334,026 | 53,059 | 421,424 | 45,072 | 75,118 | 16,587 | 163,606 | 318,651 | 75.61 | 102,773 | 61,674 | 47,595 | 4,038 |
| | 2 mos. | 496 | 668,146 | 111,585 | 849,946 | 92,187 | 146,360 | 32,264 | 327,523 | 634,961 | 74.71 | 214,985 | 132,483 | 105,094 | 65,252 |
| Kansas City Southern | Feb. | 879 | 895,480 | 12,597 | 1,010,040 | 88,955 | 148,830 | 49,509 | 296,049 | 637,665 | 63.1 | 372,375 | 273,375 | 231,365 | 231,463 |
| | 2 mos. | 879 | 1,847,357 | 27,258 | 2,081,951 | 178,095 | 298,854 | 101,725 | 606,701 | 1,299,018 | 62.4 | 782,933 | 584,933 | 498,640 | 486,338 |
| Kansas, Oklahoma & Gulf | Feb. | 327 | 200,115 | 343 | 203,127 | 27,196 | 10,529 | 8,680 | 40,263 | 96,378 | 47.4 | 106,749 | 86,723 | 69,512 | 60,689 |
| | 2 mos. | 327 | 417,914 | 700 | 423,901 | 39,331 | 19,700 | 17,683 | 83,210 | 176,440 | 41.6 | 247,461 | 207,280 | 169,801 | 129,890 |
| Lake Superior & Ishpeming | Feb. | 156 | 22,827 | 65 | 23,672 | 16,078 | 19,544 | 644 | 20,600 | 62,923 | 265.8 | —39,251 | —56,895 | —57,926 | —69,061 |
| | 2 mos. | 156 | 45,467 | 137 | 47,234 | 33,037 | 39,243 | 1,283 | 41,918 | 127,917 | 270.8 | —80,683 | —134,884 | —136,892 | —139,542 |
| Lehigh & Hudson River | Feb. | 96 | 120,396 | 63 | 121,048 | 8,064 | 20,625 | 3,665 | 42,582 | 81,644 | 67.4 | 39,404 | 24,404 | 15,147 | —18,780 |
| | 2 mos | 96 | 257,684 | 152 | 259,001 | 17,560 | 44,055 | 7,642 | 88,491 | 170,974 | 66.0 | 88,027 | 56,679 | 36,495 | —15,044 |
| Lehigh & New England | Feb. | 200 | 267,496 | ..... | 269,316 | 24,914 | 56,605 | 7,009 | 95,055 | 198,662 | 73.8 | 70,654 | 51,129 | 57,940 | 17,771 |
| | 2 mos | 200 | 549,105 | ..... | 553,035 | 48,868 | 114,084 | 13,665 | 197,610 | 405,127 | 73.3 | 147,908 | 107,114 | 126,858 | 51,923 |
| Lehigh Valley | Feb. | 1,283 | 3,057,740 | 155,567 | 3,412,153 | 181,204 | 579,337 | 107,118 | 1,506,603 | 2,490,538 | 73.0 | 921,615 | 657,528 | 457,888 | 10,795 |
| | 2 mos. | 1,284 | 6,516,023 | 324,345 | 7,266,223 | 368,552 | 1,198,497 | 217,004 | 3,135,178 | 5,178,891 | 71.3 | 2,087,332 | 1,522,745 | 1,093,506 | 286,941 |
| Louisiana & Arkansas | Feb. | 606 | 421,637 | 6,532 | 444,606 | 59,398 | 71,678 | 30,927 | 120,406 | 303,061 | 68.2 | 141,545 | 105,132 | 86,589 | 86,910 |
| | 2 mos | 606 | 885,525 | 13,968 | 934,639 | 130,189 | 139,819 | 61,939 | 255,717 | 630,119 | 67.4 | 304,520 | 223,444 | 181,641 | 173,467 |
| Louisiana, Arkansas & Texas | Feb. | 240 | 74,059 | ..... | 75,318 | 16,663 | 10,370 | 4,682 | 30,642 | 66,804 | 88.7 | 8,514 | 3,847 | —6,587 | —13,367 |
| | 2 mos. | 240 | 166,225 | 3 | 172,729 | 37,442 | 22,256 | 9,303 | 65,649 | 143,678 | 83.2 | 29,051 | 19,429 | —3,996 | —32,658 |
| Louisville & Nashville | Feb. | 4,925 | 5,693,821 | 480,952 | 6,586,445 | 765,970 | 1,541,987 | 186,306 | 2,358,122 | 5,116,235 | 77.7 | 1,470,210 | 885,482 | 896,006 | 241,186 |
| | 2 mos | 4,925 | 12,073,691 | 1,039,967 | 14,051,052 | 1,497,134 | 3,165,551 | 380,733 | 4,934,034 | 10,517,246 | 74.9 | 3,533,806 | 2,215,013 | 2,270,042 | 800,235 |
| Maine Central | Feb. | 1,004 | 859,191 | 68,890 | 997,100 | 151,254 | 175,326 | 13,194 | 351,033 | 723,992 | 72.6 | 273,018 | 206,700 | 156,755 | 43,761 |
| | 2 mos. | 1,004 | 1,767,503 | 138,321 | 2,077,484 | 299,776 | 353,261 | 24,720 | 748,842 | 1,493,270 | 71.9 | 584,214 | 449,861 | 335,649 | 194,880 |
| Midland Valley | Feb. | 352 | 101,581 | Dr. 1 | 102,877 | 8,697 | 7,158 | 2,715 | 29,022 | 54,291 | 52.8 | 48,586 | 37,778 | 29,217 | 15,059 |
| | 2 mos. | 352 | 207,612 | 1 | 210,739 | 17,698 | 14,549 | 5,480 | 57,579 | 108,758 | 51.6 | 101,981 | 80,257 | 63,284 | 36,320 |
| Minneapolis & St. Louis | Feb. | 1,524 | 547,646 | 6,513 | 585,407 | 64,103 | 103,693 | 44,696 | 251,557 | 493,823 | 84.4 | 91,584 | 51,199 | 19,116 | 5,736 |
| | 2 mos. | 1,524 | 1,170,929 | 15,286 | 1,251,610 | 131,729 | 219,864 | 92,719 | 524,182 | 1,035,511 | 82.7 | 216,099 | 132,139 | 53,463 | 2,337 |
| Minneapolis, St. Paul & Sault Ste. Marie | Feb. | 4,290 | 1,403,429 | 59,147 | 1,593,508 | 291,767 | 355,089 | 58,469 | 870,619 | 1,659,154 | 104.1 | —65,646 | —230,526 | —329,404 | —422,208 |
| | 2 mos. | 4,290 | 2,947,416 | 134,676 | 3,348,373 | 534,890 | 740,705 | 118,576 | 1,778,482 | 3,342,135 | 99.8 | 6,238 | —356,985 | —545,130 | —763,651 |
| Duluth, South Shore & Atlantic | Feb. | 550 | 92,307 | 7,943 | 111,770 | 28,165 | 32,389 | 5,397 | 73,734 | 146,043 | 130.7 | —34,273 | —47,269 | —51,611 | —58,060 |
| | 2 mos. | 550 | 204,068 | 19,241 | 247,544 | 53,224 | 61,625 | 10,689 | 148,909 | 286,832 | 115.9 | —39,288 | —65,924 | —74,205 | —107,465 |
| Spokane International | Feb. | 152 | 41,830 | 895 | 49,225 | 8,122 | 6,104 | 2,059 | 21,047 | 41,965 | 85.3 | 7,260 | 2,625 | 378 | —6,137 |
| | 2 mos | 152 | 99,496 | 2,040 | 114,699 | 15,084 | 11,658 | 4,271 | 46,182 | 86,439 | 75.4 | 28,260 | 18,832 | 14,268 | —14,837 |
| Mississippi Central | Feb. | 150 | 53,272 | 1,378 | 56,588 | 17,827 | 8,675 | 7,143 | 19,685 | 58,411 | 103.2 | —1,823 | —6,517 | —10,920 | —2,600 |
| | 2 mos. | 150 | 112,407 | 2,706 | 119,360 | 33,073 | 17,083 | 14,156 | 40,233 | 114,333 | 95.8 | 5,027 | —4,374 | —13,612 | —9,808 |
| Missouri & Arkansas | Feb. | 365 | 68,848 | 1,239 | 75,793 | 19,337 | 9,661 | 5,741 | 26,172 | 65,305 | 86.2 | 10,488 | 6,864 | 234 | —12,760 |
| | 2 mos. | 365 | 141,958 | 2,756 | 162,990 | 41,257 | 20,494 | 11,257 | 56,289 | 139,098 | 85.3 | 23,892 | 16,400 | 3,511 | —5,556 |
| Missouri-Illinois | Feb. | 193 | 148,339 | 321 | 150,224 | 17,984 | 15,343 | 2,801 | 44,869 | 86,359 | 57.5 | 63.865 | 56,678 | 40,616 | —3,074 |
| | 2 mos | 193 | 303,529 | 703 | 307,339 | 34,572 | 32,512 | 5,332 | 92,237 | 175,622 | 57.1 | 131,717 | 117,267 | 84,210 | —6,003 |
| Missouri-Kansas-Texas Lines | Feb. | 3,294 | 1,631,923 | 145,200 | 1,976,971 | 297,379 | 376,873 | 106,344 | 838,298 | 1,740,837 | 88.1 | 236,134 | 103,916 | —64,071 | —166,311 |
| | 2 mos. | 3,294 | 3,439,779 | 330,253 | 4,192,008 | 614,879 | 778,529 | 219,383 | 1,741,428 | 3,609,458 | 86.1 | 582,550 | 293,403 | —55,994 | —87,772 |
| Missouri Pacific | Feb. | 7,173 | 5,086,630 | 371,982 | 5,999,026 | 765,224 | 1,299,790 | 226,062 | 2,379,250 | 4,920,199 | 82.0 | 1,078,827 | 595,300 | 217,256 | 100,787 |
| | 2 mos. | 7,173 | 10,676,811 | 775,759 | 12,546,677 | 1,472,780 | 2,597,295 | 463,800 | 4,935,206 | 9,973,821 | 79.5 | 2,572,856 | 1,598,293 | 809,460 | 433,816 |
| Gulf Coast Lines | Feb. | 1,759 | 1,415,548 | 33,050 | 1,508,317 | 182,323 | 188,755 | 42,038 | 391,813 | 850,773 | 56.41 | 657,544 | 586,125 | 433,157 | 390,789 |
| | 2 mos. | 1,759 | 2,798,277 | 72,323 | 3,001,438 | 370,719 | 367,321 | 92,180 | 809,680 | 1,733,700 | 57.76 | 1,267,738 | 1,123,758 | 821,580 | 778,790 |

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# REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1939—CONTINUED

| Name of road | | Av. mileage operated during period | Operating revenues: Freight | Passenger | Total (inc. misc.) | Operating expenses: Maintenance of Way and structures | Maintenance of Equipment | Traffic | Transportation | Total | Operating ratio | Net from railway operation | Operating income | Net railway operating income 1939 | Net railway operating income 1938 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| International Great Northern | Feb. | 1,155 | $677,653 | $69,940 | $842,387 | $148,426 | $198,018 | $31,599 | $389,388 | $819,610 | 97.3 | $22,777 | —$34,609 | —$118,263 | —$22,826 |
| | 2 mos. | 1,155 | 1,468,439 | 139,915 | 1,804,685 | 297,580 | 396,173 | 65,151 | 815,113 | 1,679,754 | 93.1 | 124,931 | 7,560 | —176,682 | —88,770 |
| Mobile & Ohio | Feb. | 1,180 | 787,849 | 18,978 | 847,340 | 120,865 | 176,639 | 43,424 | 319,715 | 701,793 | 82.8 | 145,547 | 84,933 | 12,892 | 33,997 |
| | 2 mos. | 1,180 | 1,641,976 | 43,542 | 1,768,270 | 269,829 | 374,131 | 86,554 | 673,683 | 1,487,467 | 84.1 | 280,803 | 156,706 | 12,686 | 112,217 |
| Monongahela | Feb. | 172 | 317,321 | 555 | 319,470 | 28,144 | 26,390 | 525 | 75,567 | 133,757 | 41.9 | 185,713 | 158,685 | 87,847 | 14,674 |
| | 2 mos. | 172 | 650,230 | 1,191 | 654,863 | 58,092 | 56,313 | 1,067 | 154,795 | 276,463 | 42.2 | 378,400 | 324,136 | 178,072 | 15,688 |
| Montour | Feb. | 56 | 120,260 | ..... | 122,031 | 7,996 | 39,208 | 1,154 | 35,244 | 91,161 | 74.7 | 30,870 | 12,916 | 43,576 | 30,040 |
| | 2 mos. | 56 | 243,922 | ..... | 248,084 | 16,161 | 77,367 | 2,013 | 72,500 | 182,140 | 73.4 | 65,944 | 29,338 | 89,303 | 76,015 |
| Nashville, Chattanooga & St. Louis | Feb. | 1,111 | 906,649 | 104,121 | 1,130,809 | 101,412 | 217,260 | 66,898 | 459,660 | 904,671 | 80.0 | 226,138 | 149,683 | 120,170 | 19,938 |
| | 2 mos. | 1,111 | 1,915,364 | 225,036 | 2,412,816 | 240,795 | 428,383 | 135,099 | 928,780 | 1,851,805 | 76.7 | 561,011 | 406,633 | 355,461 | 86,145 |
| Nevada Northern | Feb. | 165 | 39,666 | 669 | 44,885 | 7,324 | 4,407 | 1,055 | 9,668 | 27,271 | 60.8 | 17,614 | 6,974 | 9,804 | 4,590 |
| | 2 mos. | 165 | 91,714 | 1,125 | 101,795 | 13,186 | 8,292 | 2,319 | 20,137 | 54,066 | 53.1 | 47,729 | 27,979 | 32,990 | 14,949 |
| New York Central | Feb. | 11,043 | 17,815,463 | 4,454,921 | 24,827,653 | 2,517,160 | 5,596,719 | 556,738 | 10,256,974 | 20,161,754 | 81.2 | 4,665,899 | 1,744,246 | 561,651 | —1,588,789 |
| | 2 mos. | 11,043 | 37,205,027 | 9,704,476 | 52,330,816 | 5,194,149 | 11,456,263 | 1,065,525 | 20,923,574 | 41,198,584 | 78.7 | 11,132,232 | 5,197,521 | 2,708,656 | —1,761,825 |
| Pittsburgh & Lake Erie | Feb. | 233 | 1,123,767 | 39,574 | 1,210,735 | 123,103 | 448,278 | 27,047 | 450,590 | 1,126,872 | 93.1 | 83,863 | —51,818 | 146,300 | —49,272 |
| | 2 mos. | 233 | 2,303,867 | 87,303 | 2,484,944 | 225,331 | 921,334 | 56,876 | 941,918 | 2,302,983 | 92.7 | 181,961 | —98,809 | 321,630 | —121,823 |
| New York, Chicago, & St. Louis | Feb. | 1,704 | 2,981,192 | 55,729 | 3,131,893 | 322,699 | 490,551 | 118,454 | 1,183,301 | 2,233,175 | 71.3 | 898,718 | 702,388 | 432,299 | 145,263 |
| | 2 mos. | 1,704 | 6,137,326 | 128,036 | 6,461,895 | 659,051 | 992,588 | 237,012 | 2,424,127 | 4,548,589 | 70.4 | 1,913,306 | 1,511,163 | 971,056 | 262,701 |
| New York, New Haven & Hartford | Feb. | 1,884 | 3,326,974 | 2,061,038 | 5,997,043 | 593,290 | 1,044,699 | 99,259 | 2,408,898 | 4,515,073 | 75.3 | 1,481,970 | 966,970 | 384,083 | —247,673 |
| | 2 mos. | 1,884 | 6,953,709 | 4,239,673 | 12,475,628 | 1,248,250 | 2,119,354 | 196,626 | 5,006,585 | 9,296,687 | 74.5 | 3,178,941 | 2,148,941 | 938,357 | —421,336 |
| New York Connecting | Feb. | 21 | 210,592 | ..... | 216,508 | 13,720 | 6,564 | ..... | 31,027 | 52,572 | 24.3 | 163,936 | 122,016 | 119,754 | 24,687 |
| | 2 mos. | 21 | 452,205 | ..... | 465,797 | 25,127 | 20,620 | ..... | 60,854 | 109,159 | 23.4 | 356,638 | 272,798 | 280,559 | 51,698 |
| New York, Ontario & Western | Feb. | 576 | 515,235 | 6,726 | 568,704 | 48,059 | 116,004 | 14,806 | 282,855 | 488,105 | 85.8 | 80,599 | 27,256 | —20,212 | —92,175 |
| | 2 mos. | 576 | 1,043,529 | 12,272 | 1,155,255 | 99,306 | 241,152 | 29,241 | 570,268 | 993,727 | 86.0 | 161,528 | 54,088 | —31,438 | —138,097 |
| Norfolk & Western | Feb. | 2,191 | 6,316,113 | 115,484 | 6,610,887 | 646,601 | 1,400,370 | 132,391 | 1,577,583 | 3,940,912 | 59.6 | 2,669,975 | 1,735,930 | 1,917,235 | 697,379 |
| | 2 mos. | 2,191 | 13,142,955 | 276,355 | 13,814,136 | 1,329,807 | 2,909,002 | 269,324 | 3,296,516 | 8,186,926 | 59.3 | 5,627,210 | 3,650,445 | 4,018,169 | 1,457,387 |
| Norfolk Southern | Feb. | 805 | 281,667 | 2,072 | 297,663 | 67,439 | 56,238 | 23,615 | 123,136 | 285,800 | 95.8 | 11,863 | —16,972 | —27,230 | —24,699 |
| | 2 mos. | 805 | 574,000 | 4,592 | 607,707 | 135,921 | 111,871 | 47,412 | 253,740 | 587,832 | 96.7 | 19,875 | —42,571 | —62,245 | —83,534 |
| Northern Pacific | Feb. | 6,721 | 3,159,388 | 223,941 | 3,754,153 | 450,626 | 1,010,301 | 157,676 | 1,792,421 | 3,670,225 | 97.8 | 83,928 | —460,113 | —213,732 | —258,062 |
| | 2 mos. | 6,721 | 6,649,255 | 520,485 | 7,943,888 | 823,248 | 2,025,536 | 313,073 | 3,633,439 | 7,345,630 | 92.5 | 598,258 | —482,221 | 57,478 | —559,437 |
| Northwestern Pacific | Feb. | 352 | 129,873 | 43,096 | 195,064 | 54,300 | 43,475 | 3,278 | 136,203 | 248,778 | 127.5 | —53,714 | —70,796 | —77,579 | —150,789 |
| | 2 mos. | 352 | 267,614 | 89,745 | 403,645 | 104,661 | 89,969 | 6,133 | 279,287 | 502,684 | 124.5 | —99,039 | —133,986 | —148,638 | —282,192 |
| Oklahoma City-Ada-Atoka | Feb. | 132 | 25,190 | 230 | 27,220 | 4,932 | 951 | 749 | 10,736 | 19,249 | 70.7 | 7,971 | 5,125 | 1,269 | 5,472 |
| | 2 mos. | 132 | 53,303 | 437 | 57,579 | 11,598 | 2,067 | 1,591 | 22,038 | 41,099 | 71.4 | 16,480 | 10,727 | 2,659 | 16,795 |
| Pennsylvania | Feb. | 10,289 | 22,012,522 | 4,985,744 | 29,472,537 | 3,204,029 | 6,142,302 | 636,567 | 11,452,860 | 22,618,928 | 76.7 | 6,853,609 | 4,181,968 | 3,735,617 | 1,783,087 |
| | 2 mos. | 10,289 | 45,828,428 | 11,304,665 | 62,369,270 | 6,461,560 | 13,286,789 | 1,282,684 | 23,787,310 | 47,262,397 | 75.8 | 15,106,873 | 9,714,952 | 8,734,413 | 4,024,847 |
| Long Island | Feb. | 383 | 488,790 | 1,074,281 | 1,638,260 | 196,792 | 350,370 | 7,231 | 898,907 | 1,485,336 | 90.7 | 152,924 | —34,775 | —199,701 | —204,678 |
| | 2 mos. | 383 | 1,015,580 | 2,286,775 | 3,464,035 | 396,267 | 697,564 | 13,301 | 1,869,368 | 3,046,096 | 87.9 | 417,939 | 38,791 | —304,626 | —267,889 |
| Pennsylvania-Reading Seashore Lines | Feb. | 412 | 222,397 | 98,775 | 336,321 | 71,892 | 68,877 | 4,974 | 240,460 | 399,320 | 118.7 | —62,999 | —135,227 | —193,975 | —217,396 |
| | 2 mos. | 412 | 452,038 | 190,929 | 675,833 | 142,398 | 143,770 | 10,799 | 500,732 | 826,053 | 122.2 | —150,220 | —295,844 | —411,559 | —470,832 |
| Pere Marquette | Feb. | 2,115 | 2,056,184 | 65,435 | 2,220,449 | 282,837 | 506,850 | 60,085 | 889,749 | 1,831,494 | 82.5 | 388,955 | 237,869 | 226,868 | —160,815 |
| | 2 mos. | 2,115 | 4,255,063 | 157,192 | 4,613,624 | 582,830 | 999,985 | 120,105 | 1,838,853 | 3,728,797 | 80.8 | 884,827 | 579,837 | 405,696 | —373,218 |
| Pittsburg & Shawmut | Feb. | 101 | 53,459 | ..... | 53,951 | 4,942 | 21,086 | 1,609 | 17,328 | 48,329 | 89.6 | 5,622 | 3,653 | —716 | —12,301 |
| | 2 mos. | 101 | 106,318 | ..... | 107,220 | 10,901 | 40,903 | 3,013 | 34,847 | 96,845 | 90.3 | 10,375 | 6,542 | —506 | —23,413 |
| Pittsburgh & West Virginia | Feb. | 136 | 245,734 | 84 | 262,239 | 26,334 | 52,950 | 16,325 | 59,452 | 178,170 | 67.9 | 84,069 | 61,705 | 74,976 | 42,620 |
| | 2 mos. | 136 | 496,756 | 84 | 530,359 | 55,573 | 109,130 | 32,381 | 123,236 | 367,508 | 69.3 | 162,851 | 116,900 | 141,186 | 91,530 |
| Pittsburg, Shawmut & Northern | Feb. | 190 | 82,867 | ..... | 83,618 | 9,446 | 12,541 | 1,002 | 27,785 | 57,278 | 68.5 | 26,341 | 21,441 | 13,909 | —5,929 |
| | 2 mos. | 190 | 181,736 | ..... | 183,387 | 19,385 | 25,097 | 1,952 | 59,622 | 118,075 | 64.4 | 65,312 | 55,310 | 38,024 | —7,098 |
| Reading | Feb. | 1,450 | 3,625,577 | 259,717 | 4,067,999 | 282,455 | 843,793 | 67,368 | 1,718,029 | 3,056,336 | 75.1 | 1,011,663 | 738,734 | 704,683 | 256,577 |
| | 2 mos. | 1,450 | 7,785,287 | 572,766 | 8,730,985 | 647,417 | 1,665,259 | 138,193 | 3,598,490 | 6,344,349 | 72.7 | 2,386,636 | 1,735,571 | 1,664,407 | 891,888 |
| Richmond, Fredericksburg & Potomac | Feb. | 118 | 362,261 | 289,740 | 753,209 | 50,426 | 136,262 | 9,500 | 297,979 | 545,360 | 72.4 | 207,849 | 149,323 | 79,106 | 25,147 |
| | 2 mos. | 118 | 730,524 | 569,048 | 1,506,462 | 100,726 | 268,640 | 19,545 | 614,964 | 1,103,463 | 73.2 | 402,999 | 285,141 | 153,887 | 58,241 |
| Rutland | Feb. | 407 | 164,411 | 28,351 | 234,837 | 37,522 | 54,045 | 9,778 | 142,991 | 254,152 | 108.2 | —19,315 | —43,442 | —43,169 | —82,478 |
| | 2 mos. | 407 | 345,430 | 60,331 | 495,271 | 65,358 | 111,543 | 19,936 | 295,097 | 512,752 | 103.5 | —17,481 | —65,736 | —67,109 | —170,751 |

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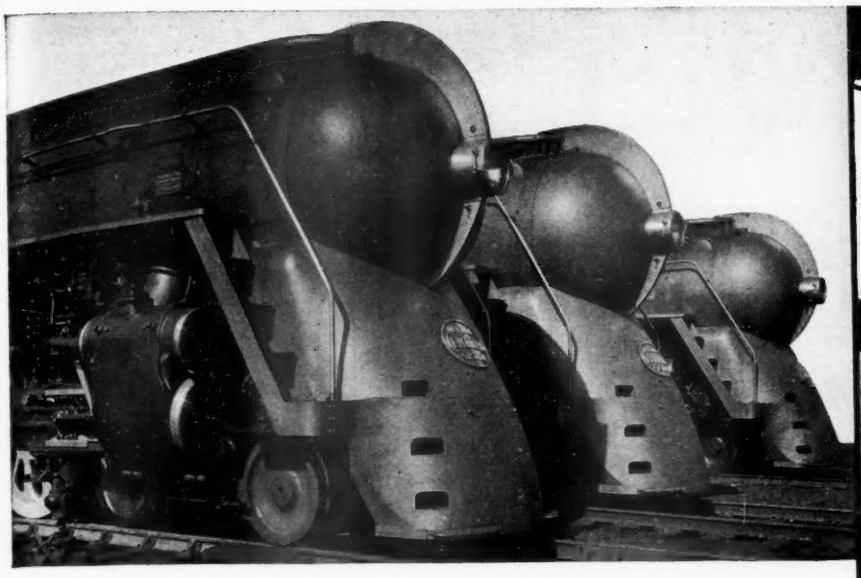


# As Modern as Today's Streamlined Locomotives!

Sellers offers a new, Type "S" Injector with many valuable improvements that make it the outstanding boiler feed of today for modern locomotives.

**It is started, stopped and its capacity regulated entirely by one lever.** This lever, located close to the engineer, may be operated without taking his attention from road signals or roadway.

**It is a lifting as well as a non-lifting injector and therefore, may be** located out of danger of roadbed hazards and yet drain all the water from standard or false bottom tenders.

Sellers Type "S" Injector

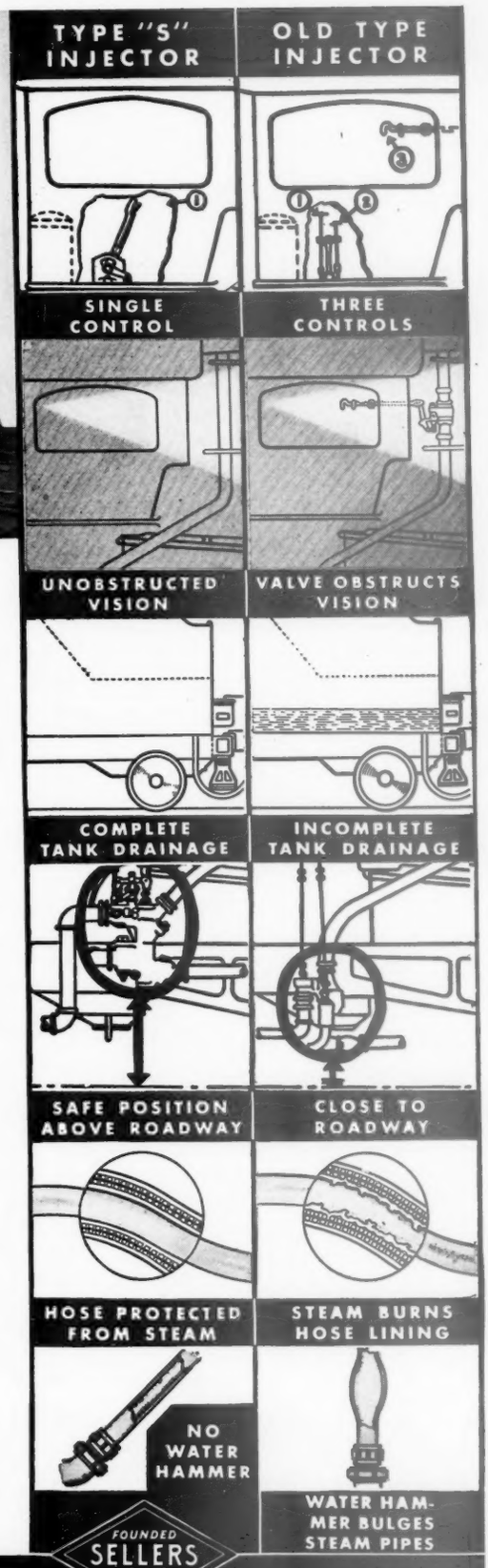
**It automatically controls overflow—the** overflow valves opening when injector is idle and closing when injector is feeding, thus preventing any water waste while injector is in operation.

**It positively eliminates bulged steam** pipes and broken injector bodies due to water hammer by preventing water entering the steam pipe in starting.

These advantages and the comparisons clearly show why the Sellers Type "S" injector is years ahead of other injectors . . . why it is rapidly replacing old type boiler feed equipment.

Ask a Sellers representative to tell you more about this new injector. Let him show you why it does away with injector troubles, saves time and cuts maintenance and renewal costs to the bone.

**WILLIAM SELLERS & CO., INC.**
**1600 Hamilton Street Philadelphia, Pa.**




# Sellers

# REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1939—CONTINUED

| Name of road | | Av. mileage operated during period | Operating revenues: Freight | Passenger | Total (inc. misc.) | Operating expenses: Maintenance of Way and structures | Maintenance of Equipment | Traffic | Transportation | Total | Operating ratio | Net from railway operation | Operating income | Net railway operating income 1939 | Net railway operating income 1938 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. Louis-San Francisco | Feb. | 4,843 | $2,637,172 | $225,524 | $3,146,944 | $527,730 | $813,205 | $115,422 | $1,301,886 | $2,937,150 | 93.3 | $209,794 | —$49,671 | —$56,655 | —$391,734 |
| | 2 mos. | 4,843 | 5,455,280 | 513,548 | 6,562,872 | 1,113,538 | 1,696,309 | 231,596 | 2,690,484 | 6,092,920 | 92.8 | 469,952 | —113,507 | —121,812 | —675,362 |
| St. Louis, San Francisco & Texas | Feb. | 267 | 97,338 | 462 | 103,054 | 22,926 | 13,204 | 7,933 | 48,954 | 99,868 | 96.9 | 3,186 | —4,978 | —30,240 | —31,205 |
| | 2 mos. | 267 | 215,427 | 965 | 228,030 | 46,884 | 28,551 | 15,939 | 100,706 | 205,855 | 90.3 | 22,175 | 5,716 | —49,690 | —75,152 |
| St. Louis Southwestern Lines | Feb. | 1,701 | 1,353,436 | 17,531 | 1,426,831 | 205,175 | 294,476 | 83,073 | 517,814 | 1,179,890 | 82.7 | 246,941 | 140,444 | —4,600 | 76,283 |
| | 2 mos. | 1,701 | 2,785,704 | 42,447 | 2,944,205 | 410,738 | 596,451 | 166,038 | 1,050,834 | 2,375,998 | 80.7 | 568,207 | 353,609 | 69,945 | 109,441 |
| Seaboard Air Line | Feb. | 4,317 | 2,693,371 | 758,818 | 3,807,477 | 477,831 | 733,683 | 178,358 | 1,393,519 | 3,003,769 | 78.9 | 803,708 | 453,708 | 299,966 | 208,892 |
| | 2 mos. | 4,317 | 5,623,496 | 1,512,883 | 7,851,685 | 990,648 | 1,509,506 | 368,965 | 2,864,247 | 6,174,452 | 78.6 | 1,677,233 | 977,233 | 660,979 | 310,403 |
| Southern Railway | Feb. | 6,598 | 5,846,858 | 585,010 | 7,039,236 | 952,429 | 1,235,866 | 157,269 | 2,659,133 | 5,300,444 | 75.3 | 1,738,792 | 1,125,952 | 858,074 | 309,672 |
| | 2 mos. | 6,598 | 12,430,306 | 1,293,555 | 14,983,872 | 1,927,010 | 2,537,781 | 317,215 | 5,507,729 | 10,896,787 | 72.7 | 4,087,085 | 2,789,374 | 2,220,358 | 588,095 |
| Alabama Great Southern | Feb. | 315 | 463,117 | 34,949 | 535,760 | 81,801 | 122,683 | 13,050 | 179,533 | 419,360 | 78.3 | 116,400 | 53,260 | 68,776 | 59,476 |
| | 2 mos. | 315 | 975,748 | 76,552 | 1,129,072 | 162,366 | 249,381 | 26,433 | 376,764 | 859,692 | 76.1 | 269,380 | 132,660 | 163,701 | 87,729 |
| Cincinnati, New Orleans & Texas Pacific | Feb. | 337 | 1,158,833 | 122,941 | 1,363,081 | 194,236 | 272,181 | 26,813 | 367,376 | 913,354 | 67.0 | 449,727 | 324,083 | 330,126 | 216,161 |
| | 2 mos. | 337 | 2,430,418 | 249,229 | 2,849,988 | 361,445 | 541,760 | 53,179 | 744,723 | 1,808,198 | 63.4 | 1,041,790 | 746,595 | 759,327 | 447,511 |
| Georgia Southern & Florida | Feb. | 398 | 127,128 | 70,667 | 220,157 | 29,671 | 38,218 | 1,759 | 84,423 | 162,722 | 73.9 | 57,435 | 41,265 | 28,348 | 6,204 |
| | 2 mos. | 398 | 269,572 | 137,273 | 451,433 | 63,337 | 74,421 | 3,518 | 176,442 | 334,861 | 74.2 | 116,572 | 83,949 | 63,755 | 27,734 |
| New Orleans & Northeastern | Feb. | 204 | 180,444 | 15,621 | 211,813 | 27,935 | 32,741 | 5,543 | 70,331 | 147,885 | 69.8 | 63,928 | 32,951 | 8,635 | 752 |
| | 2 mos. | 204 | 376,968 | 29,519 | 439,901 | 60,728 | 70,091 | 11,675 | 135,777 | 301,068 | 68.4 | 138,833 | 76,794 | 31,901 | —24,762 |
| Northern Alabama | Feb. | 100 | 53,007 | 780 | 55,490 | 7,592 | 1,431 | 936 | 16,234 | 27,859 | 50.2 | 27,631 | 21,941 | 14,492 | 170 |
| | 2 mos. | 100 | 106,976 | 1,709 | 112,095 | 19,994 | 2,650 | 1,859 | 33,282 | 61,459 | 54.8 | 50,636 | 39,202 | 22,793 | —3,550 |
| Southern Pacific | Feb. | 8,657 | 8,066,483 | 1,367,789 | 10,352,312 | 1,253,740 | 2,245,665 | 308,500 | 4,166,995 | 8,689,759 | 83.9 | 1,662,553 | 521,061 | —40,029 | —798,907 |
| | 2 mos. | 8,657 | 17,250,054 | 2,873,097 | 22,086,117 | 2,581,667 | 4,523,596 | 620,438 | 8,915,839 | 18,134,511 | 82.1 | 3,951,606 | 1,624,842 | 568,739 | —1,218,538 |
| Southern Pacific Steamship Lines | Feb. | ..... | 504,759 | 29,849 | 562,477 | 12,004 | 104,847 | 16,297 | 371,524 | 520,897 | 92.6 | 41,580 | 26,943 | 26,741 | —45,195 |
| | 2 mos. | ..... | 1,000,797 | 48,708 | 1,109,211 | 26,268 | 209,686 | 33,061 | 743,782 | 1,045,973 | 94.3 | 63,238 | 34,412 | 34,100 | —126,778 |
| Texas & New Orleans | Feb. | 4,416 | 2,789,275 | 238,003 | 3,282,955 | 487,913 | 535,703 | 122,173 | 1,140,522 | 2,495,230 | 76.0 | 787,725 | 491,609 | 274,180 | 74,549 |
| | 2 mos. | 4,416 | 5,733,255 | 499,549 | 6,768,930 | 987,560 | 1,096,494 | 244,629 | 2,376,993 | 5,128,911 | 75.8 | 1,640,019 | 1,039,645 | 593,903 | 113,129 |
| Spokane, Portland & Seattle | Feb. | 948 | 492,225 | 24,028 | 561,653 | 97,370 | 74,016 | 8,940 | 238,998 | 445,135 | 79.3 | 116,518 | 45,266 | 3,270 | 31,927 |
| | 2 mos. | 948 | 1,050,300 | 54,008 | 1,203,753 | 194,750 | 159,285 | 19,599 | 482,535 | 911,177 | 75.7 | 292,576 | 148,597 | 62,449 | 81,511 |
| Tennessee Central | Feb. | 287 | 163,919 | 3,422 | 177,885 | 33,568 | 29,466 | 6,581 | 67,874 | 148,507 | 83.5 | 29,378 | 18,299 | 1,782 | —2,417 |
| | 2 mos. | 287 | 354,479 | 7,755 | 384,463 | 62,256 | 59,636 | 12,782 | 144,438 | 299,535 | 77.9 | 84,928 | 60,758 | 26,588 | 15,376 |
| Texas & Pacific | Feb. | 1,936 | 1,680,221 | 152,905 | 1,992,598 | 215,389 | 364,903 | 68,531 | 641,835 | 1,402,418 | 70.4 | 590,180 | 444,323 | 331,931 | 248,653 |
| | 2 mos. | 1,936 | 3,406,584 | 347,570 | 4,088,044 | 433,946 | 744,524 | 140,757 | 1,350,336 | 2,902,551 | 71.0 | 1,185,493 | 889,306 | 668,302 | 507,230 |
| Texas Mexican | Feb. | 162 | 59,236 | 1,104 | 70,317 | 9,327 | 10,943 | 3,001 | 29,652 | 58,453 | 83.1 | 11,864 | 6,092 | 3,527 | 15,354 |
| | 2 mos. | 162 | 110,808 | 1,394 | 132,958 | 20,089 | 24,266 | 6,024 | 61,039 | 122,701 | 92.3 | 10,257 | —1,401 | —6,959 | 4,518 |
| Toledo, Peoria & Western | Feb. | 239 | 147,229 | ..... | 149,331 | 31,953 | 13,866 | 15,965 | 37,339 | 109,360 | 73.2 | 39,971 | 24,627 | 13,124 | 13,463 |
| | 2 mos. | 239 | 296,851 | 58 | 301,135 | 51,954 | 29,841 | 32,269 | 76,192 | 211,095 | 70.1 | 90,040 | 59,521 | 35,176 | 43,274 |
| Union Pacific System | Feb. | 9,904 | 8,410,411 | 930,940 | 10,237,984 | 823,741 | 2,267,820 | 351,132 | 4,076,775 | 8,194,182 | 80.0 | 2,043,802 | 781,813 | 206,248 | 645,139 |
| | 2 mos. | 9,904 | 18,056,740 | 2,184,282 | 22,152,080 | 1,658,767 | 4,621,273 | 734,800 | 8,443,202 | 16,841,073 | 76.0 | 5,311,007 | 2,773,849 | 1,550,271 | 1,413,421 |
| Utah | Feb. | 111 | 87,098 | ..... | 87,502 | 6,703 | 26,833 | 470 | 23,851 | 61,939 | 70.8 | 25,563 | 13,534 | 15,921 | —10,478 |
| | 2 mos. | 111 | 170,217 | ..... | 170,747 | 17,992 | 54,121 | 860 | 46,492 | 127,494 | 74.7 | 43,253 | 18,620 | 23,069 | —15,456 |
| Virginian | Feb. | 638 | 1,724,359 | 2,551 | 1,768,504 | 157,362 | 368,835 | 23,694 | 263,370 | 846,825 | 47.9 | 921,679 | 671,679 | 709,279 | 498,008 |
| | 2 mos. | 638 | 3,596,399 | 5,248 | 3,685,595 | 309,534 | 743,430 | 47,657 | 549,645 | 1,715,691 | 46.6 | 1,969,904 | 1,449,904 | 1,518,681 | 1,159,062 |
| Wabash | Feb. | 2,410 | 2,877,771 | 164,645 | 3,270,081 | 390,014 | 625,740 | 142,728 | 1,384,200 | 2,692,131 | 82.3 | 577,950 | 364,895 | —9,495 | —348,356 |
| | 2 mos. | 2,410 | 5,965,541 | 385,564 | 6,820,214 | 774,046 | 1,253,640 | 291,280 | 2,859,245 | 5,489,097 | 80.5 | 1,331,117 | 899,175 | 165,473 | —577,493 |
| Ann Arbor | Feb. | 294 | 292,230 | 1,736 | 301,120 | 34,310 | 71,584 | 12,626 | 148,360 | 278,454 | 92.5 | 22,666 | 2,788 | —12,533 | —28,055 |
| | 2 mos. | 294 | 607,378 | 4,831 | 625,841 | 59,869 | 135,598 | 25,975 | 290,321 | 535,263 | 85.5 | 90,578 | 50,594 | 20,111 | —50,233 |
| Western Maryland | Feb. | 878 | 1,188,665 | 5,090 | 1,227,687 | 121,055 | 280,366 | 40,561 | 344,502 | 833,315 | 67.9 | 394,372 | 319,372 | 332,243 | 255,601 |
| | 2 mos. | 878 | 2,539,362 | 11,488 | 2,629,256 | 281,833 | 611,234 | 80,440 | 716,331 | 1,784,291 | 67.9 | 844,965 | 694,965 | 724,078 | 511,161 |
| Western Pacific | Feb. | 1,208 | 901,378 | 17,291 | 938,860 | 137,529 | 243,160 | 54,440 | 420,461 | 905,673 | 96.5 | 33,187 | —39,342 | —66,831 | —379,050 |
| | 2 mos. | 1,208 | 1,997,050 | 39,356 | 2,073,519 | 266,694 | 462,006 | 110,570 | 885,880 | 1,825,470 | 88.0 | 248,049 | 89,539 | —37,850 | —629,013 |
| Wheeling & Lake Erie | Feb. | 508 | 975,947 | Dr. 12 | 1,010,102 | 95,110 | 226,338 | 35,608 | 328,064 | 713,503 | 70.6 | 296,599 | 172,295 | 237,891 | 29,346 |
| | 2 mos. | 508 | 2,053,790 | Dr. 1 | 2,123,709 | 190,388 | 454,953 | 72,210 | 679,821 | 1,456,112 | 68.6 | 667,597 | 403,562 | 534,586 | 67,647 |